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DEATH OF CAPT. E. M. PECK.

Capt. E. M. Peck died last Friday evening at his home, No. 816 Woodward avenue, Detroit, after two weeks' illness from stomach trouble and pneumonia. This was the first time in his seventy-four years of life that any illness had been so severe as to confine him to his bed.

Capt. Peck was known everywhere throughout the lake region, and was a universal favorite. His eccentrically brusque manner failed to hide a rare kindness of heart, and his perfect business integrity was a proverb among those who knew him well.

Capt. Peck was born at Butternuts, N. Y., Sept. 22, 1822, and came to Cleveland at the age of 15. He engaged in shipbuilding, and when twenty-three years old, was united in marriage to Susan Ettling Rogers, the ceremony being performed at Bedford, near Cleveland. He entered into a partnership with Hon. I. U. Masters, who later became mayor of Cleveland, the firm name being Peck & Masters. They built the schooners Naomie, Golden Fleece, Unadilla, P. C. Sherman, David Stewart, S. V. R. Watson, Northwest and the steamers Meteor, Pewabic, Evergreen, Fountain City, Idaho, Winslow, St. Louis, R. J. Hackett, Forest City, and the tugs Metamora, E. M. Peck (now C. E. Benham) and I. U. Masters. Many of these are still afloat and useful property to their owners, and others were lost with the last few years only. The firm had a wide reputation for the sturdiness of their vessels, and carried on a flourishing business.

In 1870 Capt. Peck determined to try the practicability of increasing the earning power of his steam equipment by putting barges behind his propellers. The Forest City, at that time a schooner, was attached by tow line to the R. J. Hackett. The success of this idea has probably done more than any other one thing to place the coarse freight carrying trade of to-day on its present basis.

In 1875 Capt. Peck abandoned the shipbuilding business, and removed to Detroit, where he organized the Northwestern Transportation Co., which for a time, operated a summer and winter line on Lake Michigan. The company still lives, although its line of trade has changed materially. It is for this company that the schooner George E. Hartnell is building at Chicago. The Hartnell was named in honor of a nephew of Capt. Peck, who lives in Cleveland.

Capt. Peck accumulated a fortune which runs close to a million dollars, acquired almost exclusively in the building and carrying business. He was a great traveller, and made a number of trips to Europe and the Holy Land. He spent most of the past winter in the West Indies and Florida.

Capt. Peck had a premonition that his end had come.

He did not lose his cheerfulness, but when he and his brother, Edward T. Peck, were discussing matters to occur some little time ahead, and as Capt. Peck was instructing his brother as to what should be done, the younger man said: "Oh, that's some time ahead; you will be around by that time yourself." "No, I won't," was the quiet reply, "I will not be there." He also gave other members of the family directions as to what should be done, and instructed Mrs. Peck to give his Swiss watch, which he had always prized most highly, to his brother Edward, with the injunction that he should never forget to wind it up. He showed his kindly and thoughtful disposition to the last breath, and passed away most peacefully.

The high esteem and great affection felt for Capt. Peck by all his business associates was best attested by the manner in which the funeral ceremonies were carried out. The services were held Monday afternoon at the family home, the remains resting on a couch in a library—his favorite room in the house. He looked like

house flag of the Northwestern Transportation Co., and the pennant bearing the name of the boat and her owner floated at half mast, and the ensign astern, and the union at the bow, were in same position of mourning. The body was accompanied to Cleveland on the boat by Mrs. Peck, Mrs. M. Ranney, her sister, Mrs. J. Ranney, Mrs. G. E. Hartnell, and S. E. Hartnell, of Cleveland; Capt. Augustus Peck, of Port Jervis, N. Y., and Capt. Edward Peck, of Detroit, both brothers of the deceased, and A. F. Peck, also of Detroit, a nephew of the dead captain.

The steamer arrived at Cleveland about 7 o'clock Tuesday morning, the lake being smooth as glass the entire passage. The staging, which had been placed on board, was again erected at the Pennsylvania dock, just below the Lake Shore bridge, by a force of carpenters who had been brought with the funeral party. Early as was the hour, his many friends among the Cleveland vessel owners and shipbuilders soon began to arrive with grief and sympathy written on their countenances. The gathering increased until shortly before 10 o'clock

the pall bearers, who had come on the Detroit boat, bore the casket to the hearse, and the mournful procession started for Lake View cemetery, where the final services were conducted by Rev. Mr. Clark, who had accompanied the party from Detroit. The pall bearers were Capt. Joseph Nicholson, Capt. J. W. Millen, ex-President William Livingstone of the Lake Carriers' Association, Capt. J. W. Westcott, Capt. Thomas Adams, A. A. Parker, L. C. Waldo, and H. H. Brown.

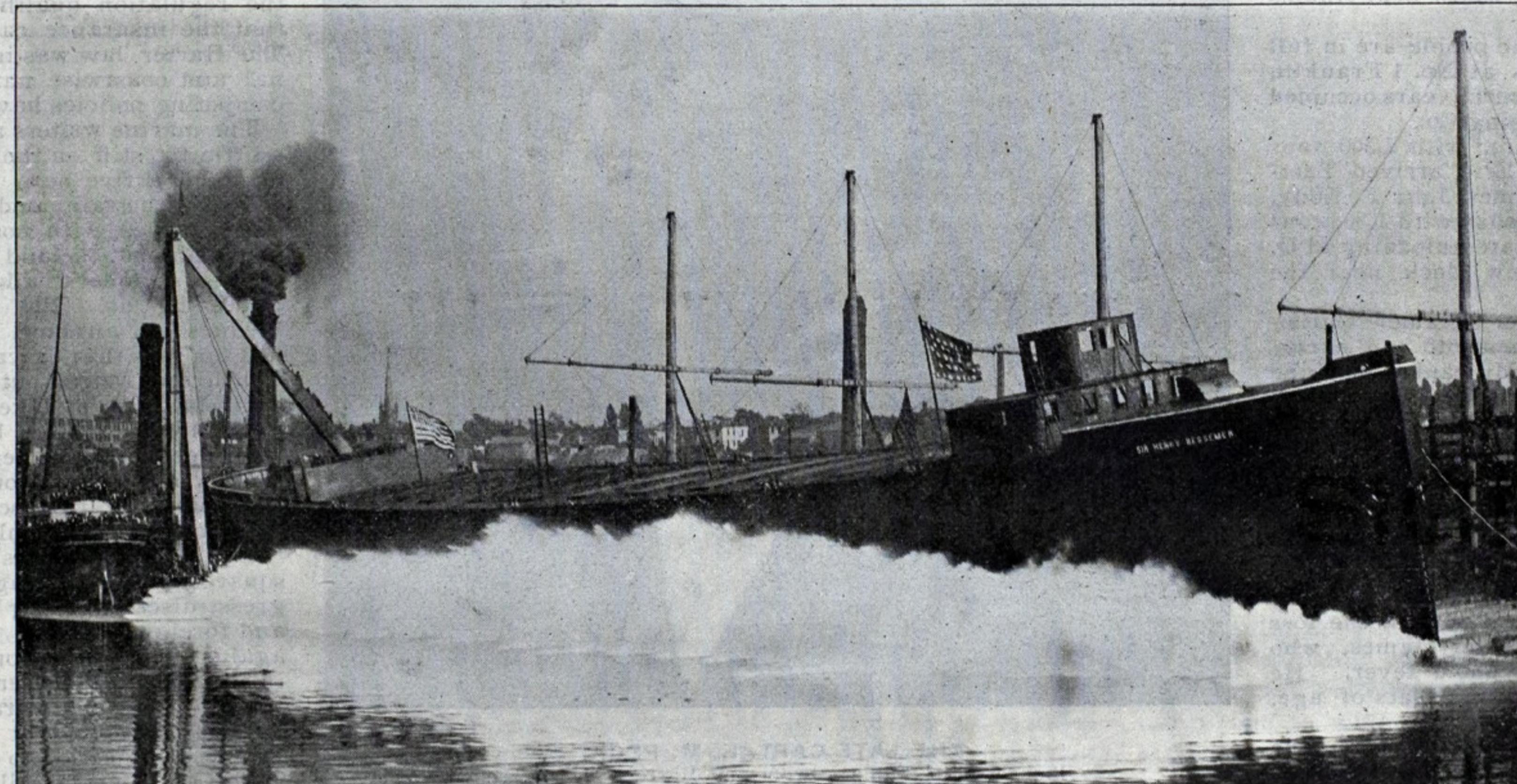
As soon as Captain Peck's death became known the colors of all the vessels in Detroit were placed half-mast, and a meeting of owners was called. Eber

Ward was chairman of the meeting and W. A. Livingstone, secretary. Those present included J. H. Farwell, J. W. Westcott, Thomas Adams, Byron Whitaker, J. W. Millen, A. A. Parker, G. W. Roby, David Whitney, David Whitney, Jr., Capt. M. W. Humphrey, L. C. Waldo, George Adams, C. F. Bielman, W. D. Ashley, David Carter, Alex McVittie, Capt. R. H. White, William Livingstone, Capt. Joseph Nicholson, W. E. Campbell, James Chandler, Alex I. McLeod, E. L. Thompson, R. S. Pingree, and John Pridgeon, Jr.

A committee consisting of Jesse Farwell, W. A. Livingstone, David Whitney, Jr., Capt. Joseph Nicholson and Alex McVittie, was appointed to draw up resolutions expressing the sense of the meeting. The following sentiment was adopted by them.

It is with a distinct sense of more than ordinary personal loss that the vessel owners of Detroit meet to take action upon the death of Capt. Elihu Monroe Peck.

Capt. Peck's life-long connection as a builder and



LAUNCH OF THE SIR HENRY BESSEMER.—See page 9.

one asleep as he lay, and the services were rendered less gloomy. The services were conducted by Rev. Rufus W. Clark, rector of St. Paul's, Detroit, where the family attended church. At 7 o'clock his friends again assembled at the house and the remains, now placed in black casket, were taken to the river, where according to the wish of the bereaved wife, the steamer E. M. Peck lay, prepared to carry the body of her namesake and owner to Cleveland. The remains were carried into the office building where Capt. Peck used to transact his business, and out upon the pavilion where he was wont to spend much of his leisure time, and where he sat, in usually good spirits, on the day on which he fell ill, two weeks before his death. Here the remains were rested on a dais, while the friends passed out and went aboard the boat over a staging which had been built from this pavilion to the deck of the steamer.

Finally the remains were carried aboard, and placed in the hallway in the forward deckhouse, which had been lined with black and decked with flowers. The

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NEWS AROUND THE LAKES.

CHICAGO.

FREIGHTS A LITTLE WEAKER, WITH PLENTY OF TONNAGE—DEATH OF CAPT. ISAAC MORRIS.

Special Correspondence to The Marine Record.

CHICAGO OFFICE, MARINE RECORD, / MAY 12, 1896.

Grain freights this week are slow and rates are $1\frac{1}{2}$ c on corn and $1\frac{1}{2}$ c on oats to Buffalo. Receipts of corn have been light and the demand from Eastern markets small. The line steamers have been carrying most of the grain that has been shipped.

The Lake Michigan Car Ferry Transportation Company's steel tug S. M. Fischer, recently built by the Craig Ship Building Co., Toledo, is expected at South Chicago with transports Nos. 3 and 4 about June 2. Barge A, built at Peshtigo, is on her way to this port in tow of the tug Crosby, and will load cars at the Company's dock in Lighthouse slip, and be towed to South Chicago, where the cars will be transferred to Nos. 1 and 2, which will then be towed to Peshtigo by the company's tug J. C. Perrett.

The steamer Fayette, Capt. W. H. Decker, has been chartered by C. R. Jones & Co., of Cleveland, for the season. The Fayette will tow the steamer Argonaut from South Chicago to Escanaba to load and then to Cleveland, after which she is to tow two barges for Jones & Co. the remainder of the season.

W. H. Singer was here from Duluth last week and purchased the tug D. G. Helm from the receiver of the Vessel Owners' Towing Company for \$5,100.

W. H. Singer's new tug, building at E. W. Heath's shipyard, at Benton Harbor, will be named the Superior. Her dimensions are 80 feet over all, 20 feet beam, 11 feet depth of hold, engine high pressure 22 x 24 inches, with steam reverse; marine boiler 8 x 14 feet, to be allowed 150 lbs. steam pressure, built by the Montague Iron Works.

The supply boat Uncle Charley broke her outboard shaft and lost her wheel near Adams street bridge last week.

The Independent Tug Line people are in full swing at their new offices at No. 1 Franklin street, recently and for several years occupied by the Vessel Owners' Towing Co.

The schooner J. J. Barlum, with 2,300 tons of Black Horse coal from Erie, arrived Tuesday morning and the steamer John F. Eddy, also from Erie, arrived Tuesday with 1,863 tons of Black Horse coal. Both are unloading at O. S. Richardson & Co.'s new dock near the north pier.

The whaleback passenger steamer Christopher Columbus will commence to run excursions between Chicago and Milwaukee on June 15. Capt. Robert Smith will be in command and W. L. Webster will be chief engineer, same as last season.

Capt. Isaac T. Morris died suddenly at his residence, 359 Chestnut street, Chicago, Monday night. The deceased was an old-time lake captain. His son, Warren Morris, is at present sailing out of Cleveland.

Since my last letter Capt. James A. Calbick has met with a severe bereavement in the loss of his youngest son, Sylvester James, who died on the 6th inst. of typhoid fever. He was a bright little fellow, nine years of age, and a great favorite.

James A. Calbick & Co. chartered the steamer Toltec for iron ore from Escanaba to South Chicago; the steamer Maggie Duncan and consorts Tyson and Favorite for lumber from Ashland to Chicago.

The Haasler & Lutz Co.'s new tug Lutz made her trial trip last Saturday afternoon. She made a run between South Chicago and Chicago in just one hour, without any hurrying. She is a well built and powerful tug.

H. W. Cook & Co. chartered the steamer Thos. Davidson for corn to Buffalo at $1\frac{1}{4}$ c; the schooner George J. Boyce for clipped oats to Port Huron at $1\frac{1}{4}$ c.

THOMAS WILLIAMS.

DULUTH AND SUPERIOR.

LOTS OF GRAIN STILL AT THE HEAD OF THE LAKES, DESPITE HEAVY SHIPMENTS—SOME MAIDEN CARGOES.

Special Correspondence to The Marine Record.

DULUTH, MAY 12.

The first cargo of the City of Bangor, was 112,944 bushels of wheat, or about 3,390 net tons.

The ore trimmers' union is making itself conspicuous here just now. It is fighting for a foothold. At present the Missabe Railroad will not allow any men to go on its dock accept those who are employed by it, or whom it chooses to leave do so. This prevents the union men from competing for the work of trimming. They asked

Vice President McBride for permission to go to the dock and bid for jobs, but he refused. They then induced the mayor of the city to intercede for them, but Mr. McBride was firm. The matter has now been brought to the attention of the Chamber of Commerce, but whether it will take any part in the matter remains to be seen. The union men claim they do not want to cut the scale but simply wish to compete for the work on the same basis as the other men.

Wheat in store here is apportioned among the various terminal elevator lines as follows: Belt Line, 1,180,752; Consolidated, 2,280,380; Globe, 3,612,036; Great Northern, 1,043,167; Superior Terminal, 1,397,356; Consolidated B, 184,719; Consolidated H, 37,669; total, 9,836,069. There is 17,906,931 bushels of wheat in store at Minneapolis.

Shipments of all kinds of grain from the head of the lakes have already reached 9,000,000 bushels, and there is still in store about 10,000,000 bushels. In spite of the heavy shipments there is now only 1,000,000 bushels of wheat less than last spring.

On her first trip from Ashland the new steamer L. C. Waldo carried 3,131 gross tons of ore. She was not, however, loaded to the full canal draft.

The Inman Tug Co. has fitted out another expedition to raise the copper jettisoned by the Centurion at Isle Royale. The Belle Cross was sent out with two divers and all the necessary appliances for the work. The expedition was accompanied by Capt. J. V. Tuttle,



THE LATE CAPT. E. M. PECK.

Pioneer Ship Builder, Owner and Master—See Page 3.

of Milwaukee, who represents the underwriters who insured the copper cargo.

The wheat rate continues here at 3 cents in spite of the rumors of a break. The rate came near going last week, but it seems to be strong again and the demand for tonnage is so good that a continuance at that rate is expected.

The Williams, Green & Williams Dredging Co. has sent a dredge to the south shore for the purpose of deepening the channel approach of the harbor, there is to be a uniform depth of 13 feet 6 inches. It is expected that considerable lumber will be shipped from here as soon as the boats are able to get in and out easily.

The Duluth & Winnipeg ore docks on Alloneze bay, shipped their first cargoes of ore a few days ago.

The Lehigh Coal & Iron Co. has reorganized as the Lehigh Coal & Coke Co., with the same officers as for some time past. The reorganization is made for the purpose of straightening out the company's affairs and securing the advantage that comes from the addition of new capital. The company's general offices have been removed from Superior to St. Paul.

The Northern Steamship Company has leased from Capt. Inman the barge Clement for use as a lighter in the harbor. She will deliver freight from Northern boats to docks which are not easily accessible.

Port Collector Olund has appointed two deputy collectors of customs for the Missabe ore dock, which was

authorized a few days ago. W. S. Braun is day deputy collector and D. T. Murphy night deputy collector. This arrangement will be a great accommodation to vessel men in the ore trade.

The United Empire came into Duluth the other day and ran her nose into the Northern Pacific docks for a distance of 30 feet. The bells connecting with the engine room failed to work.

The work of widening the channel approach of the new Missabe railroad has been begun.

E. E. BEEBE,

BUFFALO.

MAKING A TWENTY-FOOT HARBOR AT THE FOOT OF THE LAKE—THE FLOUR STORAGE QUESTION.

BUFFALO, May 12.

The ice is not only gone, but the coal shippers are getting slowly into line, and there is water enough to float the fleet. Of course there would be deeper loading if there was more water, but the other harbors as well as the river passage will not let the long-legged craft get down here, so we are safe from that difficulty. There hasn't been a boat aground in the harbor in more than a week, and the dredges are hard at work. Some \$82,000 it to be expended for that sort of work this summer. The dredges are busy just now where they are most needed, but they will keep at work till there is 20 feet of water in the inner harbor. The work will take all summer, but when it is done the other deep harbors will not be in it with us.

There is some discussion of the case of the steamer Hodge and her exploits on her first trip down. When she wet her grain it was at first said that her stern bearing was broken, but it turned out that the packing had merely worked out. Then some people who recalled the way such things used to be regarded said that she would run a smart chance of having to stand the loss. It turned out, though, that they are convicted of being students of ancient history. Once this might have been the case but not in the days of the new marine policy and the Harter law. Between them the vessel is not made liable for much of anything. If the vessel is fitted out properly and the captain has the regulation qualification there is not much that the insurance can saddle on the vessel. The Harter law was intended to promote internal and coastwise navigation, and the new competing policies have done the rest.

The marine writers at Cleveland got the pace a little too stiff on the George Stone when they made her arrive here on Thursday afternoon loaded with grain and leave Cleveland next night loaded with coal. That would oblige her to unload, fuel and load again in less than ten hours. Do let us allow posterity some chance of beating us. The Stone arrived here on Wednesday, anyhow.

It appears that Chicago has managed to scoop Toledo and Detroit out of their long-maintained grain business by lake. They used to send us grain by the million bushels before the Chicago fleet could get here, but so far Detroit has sent us nothing and outside of the jags in the line boats, the little schooner Thomas Dobbie has brought us the only load from Toledo.

The Lake Carriers' Association is pretty squarely committed against the bills in Congress discriminating against foreign sailors and foreign vessels. Mr. Goulder's argument against the latter ought to dispose of it, in spite of the vociferous support it has obtained from such ultra-protective papers as Seaboard. President Brown asks why there should be objection to employing an immigrant sailor on a vessel till he had been in the country six months when all other immigrants may go at work at once. The labor union idea in the bills is too plain to be missed.

The old steamer Donaldson appears to be renewing her age. She went to Tonawanda with five barges and 2,500,000 feet of lumber.

The new Erie coal trestle is not finished, but is in working order and has already loaded several vessels. The fact that this port is two coal trestles short this year and promises to remain so has no thing to do with the capacity for handling coal here. The added size of the vessels themselves would make up the deficiency, even if it happened to be large; but the fact is that the reduction of the number of trestles is an advantage from an economic standpoint.

There is a new problem up in the charging of storage on flour and other stuff in lake warehouses after 20 days. It always used to be held free, even through the winter, bad a discrimination as it was against the local millers and dealers, but they stood it without complaining. Now that the boot is on the other foot, here is a terrible kick, and a claim that it will drive the western millers out of the lake trade. Nobody would like to see that, but they are mostly willing to see all treated alike.

Manager Farrington, of the Northern line, has been here for the greater part of a week, it is supposed with an eye to the building up of the dock property that the acquired of the Pennsylvania Coal Co., but nothing has been made public on the subject as yet. The site is a

fine one and will surely not be allowed to remain idle any length of time.

Col. J. H. Horton, manager of the Lehigh coal shipping interests here, is in New York. He has been terribly afflicted by a disease of the eyes, that attacked one eye after the other quite a long time ago and came near rendering him entirely blind. It is expected that when he returns about the last of the month he will be able to see out of one eye, which promises to be restored permanently. The fight has been a long one and often a doubtful one.

Buffalo and Cleveland will have to congratulate each other on the successful fight made against the Detroit bridge bill. If the officers of the Lake Carriers' Association at both ports had not made every effort it would have been carried through anyhow. President Brown has sacrificed business without stint in the cause and the battle up to date is won.

This port has shipped 84 coal cargoes so far. The list may look small, and there has been any amount of complaint of no business, but the size of all lake cargoes is so much greater than formerly that the aggregate is always larger than is supposed. JOHN CHAMBERLIN.

CLEVELAND.

GENERAL MANAGER PANKHURST, OF THE GLOBE IRON WORKS, AT THE TRIAL OF A BATTLESHIP—LAKE ERIE FERRIES

CLEVELAND, May 14.

Gen. Mangr. John F. Pankhurst, of the Globe Iron Works Co., was one of the guests on board the builders' trial of the fast cruiser Brooklyn, built at Cramps' shipyard. The speed made by the Brooklyn was a trifle over 21 knots per hour.

Word comes from St. Joseph, Mich., of the death of Capt. Curtis Boughton, aged 82. He began sailing out of this port when he was but 13 years old. He removed to Lake Michigan, and was at one time the owner of 12 boats, and retired nine years ago with a snug fortune. The Conneaut-Port Dover car ferries are reported to be doing big business. There is now 17 feet of water at Port Doaver, and considerably more at Conneaut. It is said that both boats will be kept busy pretty soon. One day last week the No. 2 carried across 55 loaded cars in 24 hours.

Mr. A. B. Beach, formerly with the Cleveland & Buffalo Transit Co., is now manager of the recently organized Marine & Railway Truck Co. He has his office in the C. & B. building on River street, and is prepared to haul anything from a box of cigars to a twenty-ton forg'ng.

A rumor comes from Brooklyn, N. Y., to the effect that M. H. Hanna's steam yacht C. manche has been chartered to Wm. C. Whitney.

THE FREIGHT SITUATION.

Notwithstanding large quantities of grain is being shipped from Duluth, the wheat is still going forward in undiminished volume, and the rate holds good at 3c, with a demand for a great deal of capacity. This is not only holding up the ore rates, but insures firmness for the entire season. Much of the ore already brought down has applied on sales made last season, and a leading shipper states that if wheat keeps on absorbing the tonnage the lake fleet will not be able to get down as much ore as was brought last year. This does not indicate that there will be any scarcity of loads, and the action of the managing owners of two of the largest lake fleets which are free from connection with the shippers, in refusing to tie up their vessels at any of the contract rates yet made, has already been demonstrated to be most wise. Duluth and Ashland are paying \$1 on wild boats and Marquette 90c; in one instance \$1.05 was paid from Marquette to Tonawanda.

A sudden falling of in corn shipments from Chicago, which brought the rate down to 1½c Wednesday, caused the Escanaba ore rate, which had been firm at 70c, to drop to 65c, with no takers. The strength of Lake Superior rates will, however, undoubtedly correct this as soon as the tonnage can be distributed, and next week will probably see Escanaba firmer than ever.

In coal freights the Lake Superior rate holds steady at 35c, with a little freer supply of cargoes, and fewer boats waiting for loads. Lake Michigan coal rates are strong on account of the poor down rates, and tonnage is none too plenty at 40c to Milwaukee. Five cents more was paid on some cargoes during the week, and this rate may yet be established. The 40c rate still rules on hard coal to Milwaukee.

WRECKS AND WRECKING.

The first serious collision occurred last Thursday evening at Sailors' Encampment, between the M. B. Grover, bound down with ore, and the John V. Moran, bound up with package freight. The Grover struck the Moran on the port side amidships, cutting into her two feet, from the upper rail to the bilge. The Moran received temporary repairs and proceeded to Duluth. About 10 per cent of the cargo was damaged, the water rising in the hold three feet. The Grover was uninjured. The Moran and her cargo are covered by foreign underwriters.

A collision between the steamer Corona and the schooner Smith & Post occurred in Detroit River Sunday. The stem of the steamer struck the port quarter of the schooner, raising the stern about eight inches on the port side, and badly springing sides and deck. The damage will be about \$1,000.

The steamer Acadia, bound from Toledo to Kingston with 21,000 bushels of corn, caught fire in the Welland canal on Saturday last, from electric light wires. The fire, water and smoke have, it is thought, ruined the cargo, and the hull is badly burned inside.

The steamer Glengarry and schooner St. Peter collided Monday in the Welland, and the schooner began to leak so badly as to necessitate a temporary patch. She will be docked at Toledo.

Capt. James Reed has gone with his wrecking expedition to set about raising the Cayuga.

Capt. Jay Hursley, of Sault Ste Marie, has covered himself with distinction by releasing the schooner H. A. Kent, which, with the Moonlight, went ashore at the

THE NEW CITY OF BUFFALO.

The past few weeks have been full of work for Gen. Mangr. Newman, and Gen. Pass. Agent W. F. Herman, of the Cleveland & Buffalo Transit Co., who have had on their hands nearly all the details of arranging for the inaugural trips of the new steamship City of Buffalo, and of providing properly for the care and entertainment of about 2,000 guests on the various portions of the trip, to say nothing of the thousands who are to be carried out for matinee lake rides from Buffalo and Cleveland. The new steamer has come up in every respect to the highest expectations of builders and owners, and to the public at large who will enjoy opportunities of looking her over, at the dock and under way, she will be a perfect revelation.

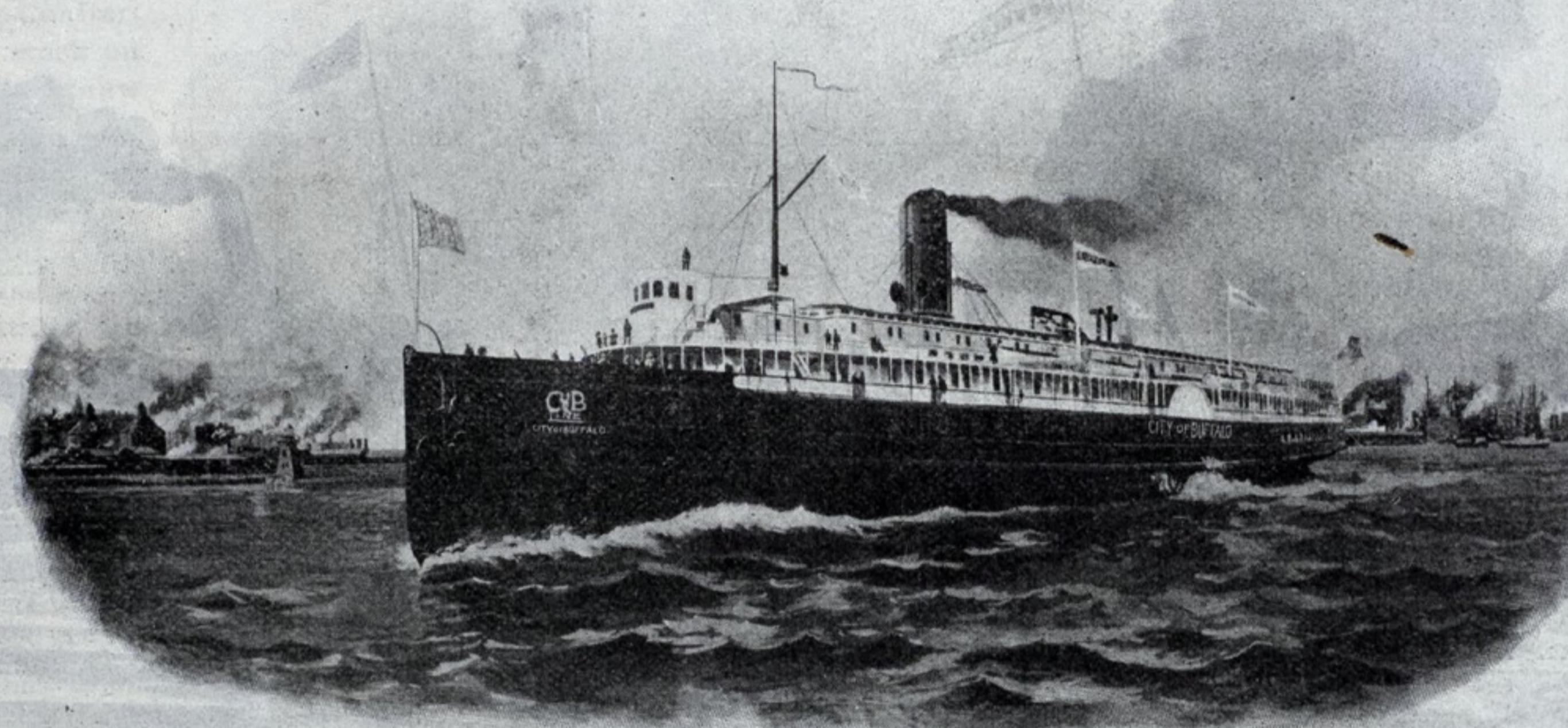
The first trial trip of the City of Buffalo was made by the builders last Thursday morning. On board were Messrs. Frank E. Kirby, who designed the hull; Andre Fletcher, president of the W. & A. Fletcher Co., of Hoboken, N. J., who have built nearly every side-wheeler engine of large size that is now in use in this country; Consulting Engineer Taylor, also of the Fletcher company; Secretary Gilbert N. McMillan, of the Detroit Dry-dock Co.; and C. B. Calder, Superintendent of the Detroit Dry-dock Co. The workmen were still in her giving the finishing touches.

Mr. Fletcher opened the throttle for the first time, and she was run up into Lake St. Clair, and then turned about and run down the river to Sandwich, after which she returned to the D. & C. dock. She was heartily saluted everywhere, and crowds of Detroit enthusiastic people gathered in the docks to see her as she sped over the water. Everything worked to the best satisfaction of all the people concerned.

Unfortunately, on her second trial Saturday, a break occurred, which, while slight in itself, delayed the boat for several days while a new part was being sent for.

At a later trial the City of Buffalo was turned, it is stated, completely around in a circle whose diameter was less than twice her own length. Going at full speed she was stopped, reversed, and gained sternway in 90 seconds. Started ahead at full speed she reached a maximum rate of 31½ turns per minute in just 60 seconds, on 105 pounds of steam. Her working pressure is 130. The trial was made with Mr. Lewis Nixon aboard, who pronounced her the fastest side-wheeler afloat. Mr. Nixon, now

THE CITY OF BUFFALO—FINEST SIDE-WHEELER AFLOAT.



mouth of Chocolay River last season. Three previous attempts by other parties had proved expensive failures. Several tugs and a sand sucker constituted the equipment. The Kent was in excellent condition and did not leak when floated. Capt. Hursley is confident of getting the Moonlight off also, but she is upon an old stone pier and will prove a harder job than the Kent. The Kent and also the Moonlight, if released, will be taken to dry-dock at Superior.

The Escanaba Towing & Wrecking Co.'s tug Monarch, acting for C. A. Macdonald & Co., general agents of the underwriters, have released the steamer Jim Sheriffs, which went ashore on Big Summer Island late last fall, with a load of coal. She was taken to Escanaba, and after discharging her coal will be docked at Milwaukee. One pump kept her free of water. The wreckers worked 14 days before releasing the ship.

The wreck of the tug Frank Mattson, which went ashore during the gale of wind last fall near Fairport was purchased by Capt. B. N. Parsons, of Vermillion, last week, for \$100. Capt. Parsons, with the tug Telephone and a wrecking crew, left for that place on Tuesday night of last week and returned to Vermillion with the wreck on Thursday, and she will be thoroughly rebuilt and used as a fishing tug.

Besson's Inland Marine Directory is now being distributed to subscribers and will be placed on sale at once. The directory is more complete than ever, showing its uniform and steady growth, and is an attractive book, indispensable for any marine office.

manager of the Crescent Ship-yard, Elizabeth, N. J., stands at the head of naval architects in this country, and is consulting engineer to the government in all the work of building cruisers, and his opinion is certainly one to which too great importance cannot be attached.

She was made ready to start for Cleveland on Thursday, instead of Tuesday, and will reach Cleveland this afternoon and Buffalo Friday morning on her first trip.

FREIGHT NOTES.

Gladstone's shipments for the week ending May 9 were: Ore, 9,000 tons; flour, 38,000 barrels; grain, 190,000 bushels; lumber, 400,000 feet; cedar, 45,000 pieces.

The April report of the Collector of Customs for the port of Duluth shows 55 arrivals, of which 40 were light and remaining 15 brought the following goods: Coal, 11,014 tons; stone, 1,125 tons; cement, 220 tons; fresh fish, 13,713 pounds; salt fish, 60 half barrels; total tonnage 15,491 tons. Sixty-eight boats departed, of which only 9 were light. The shipments were as follows: Wheat, 1,894,416 bushels; oats, 776,000 bushels; flour, 115,020 barrels; ore, 25,500 tons from Duluth, 21,300 from Two Harbors.

The week ending at midnight May 7, was the heaviest traffic in the history of the Sault Canal. There were 581 boats locked through, a daily average of 83.

Ashland shipments for the week ending May 9 were 63,000 tons of ore, and 4,200,000 feet of lumber.

Shipments of hard coal out of Buffalo during the week ending Saturday night aggregated 33,785 tons.

DEATH OF CAPTAIN E. M. PECK.
CONTINUED FROM PAGE 3.

vessel manager left an impress upon the lake marine equaled by few of its veterans. His far-sighted appreciation of its future development made him one of its most progressive members. His adoption of many new ideas, both as builder and manager, did much to mould the character of the business, and some of the most important changes in lake navigation were due to his creation. The ships he built were ever exponents of the best skill and most thorough workmanship, and were representative of that strict integrity and abhorrence of all sham which he so prominently exemplified.

But it is as a personal friend and neighbor that the members of this meeting feel their loss. For years Capt. Peck has presided at the meetings of the Detroit Vessel Owners. His sturdy and positive character, combined with many generous and kindly traits had specially endeared him to his associates and we realize that resolutions are inadequate to convey our feelings.

We commend the bereaved to Him who doeth all things well and who only can console.

We request that the flags of our vessels be flown at half mast until after the funeral. Also that a committee of eight be appointed to attend the funeral at Cleveland as an escort.

In addition to entering this expression on the record, we do also direct that a copy be sent to Mrs. Peck.

EBER WARD, President,
W. A. LIVINGSTONE, Secretary.

Also a committee consisting of L. C. Waldo, Wm. Livingstone, A. A. Parker, James Millen, Thos. Adams

"Resolved, That we extend our sympathy and condolence to his widow and family in their sorrow and bereavement.

"Resolved, That a delegation of members attend his funeral in a body.

"Resolved, That these resolutions be spread upon the minutes of the association, and that a copy be transmitted to the family of Capt. Peck."

Messrs. Thomas Wilson, Harvey H. Brown, W. S. Mack, H. A. Hawgood, M. A. Bradley, John Mitchell, John W. Moore, H. J. Webb, George P. McKay, John Corrigan, J. C. Gilchrist, Harvey D. Goulder were appointed a committee to meet the remains.

NOTES.

A. J. DREXEL's new twin-screw steel steam yacht, Margarita, now being completed in Scotland, is 280 feet long over all, 240 feet water line, 33½ feet beam, 20 feet deep, 15 feet draft and will have a speed of 16½ knots.

THE Norfolk Ship Building and Machine Co. is being organized at Norfolk, Va. The capital stock will be \$500,000. It is proposed to erect an off-shore floating dock of steel, and construct a marine repair plant to operate in connection with same. J. P. Andre Molter, of Norfolk, is interested in the enterprise.

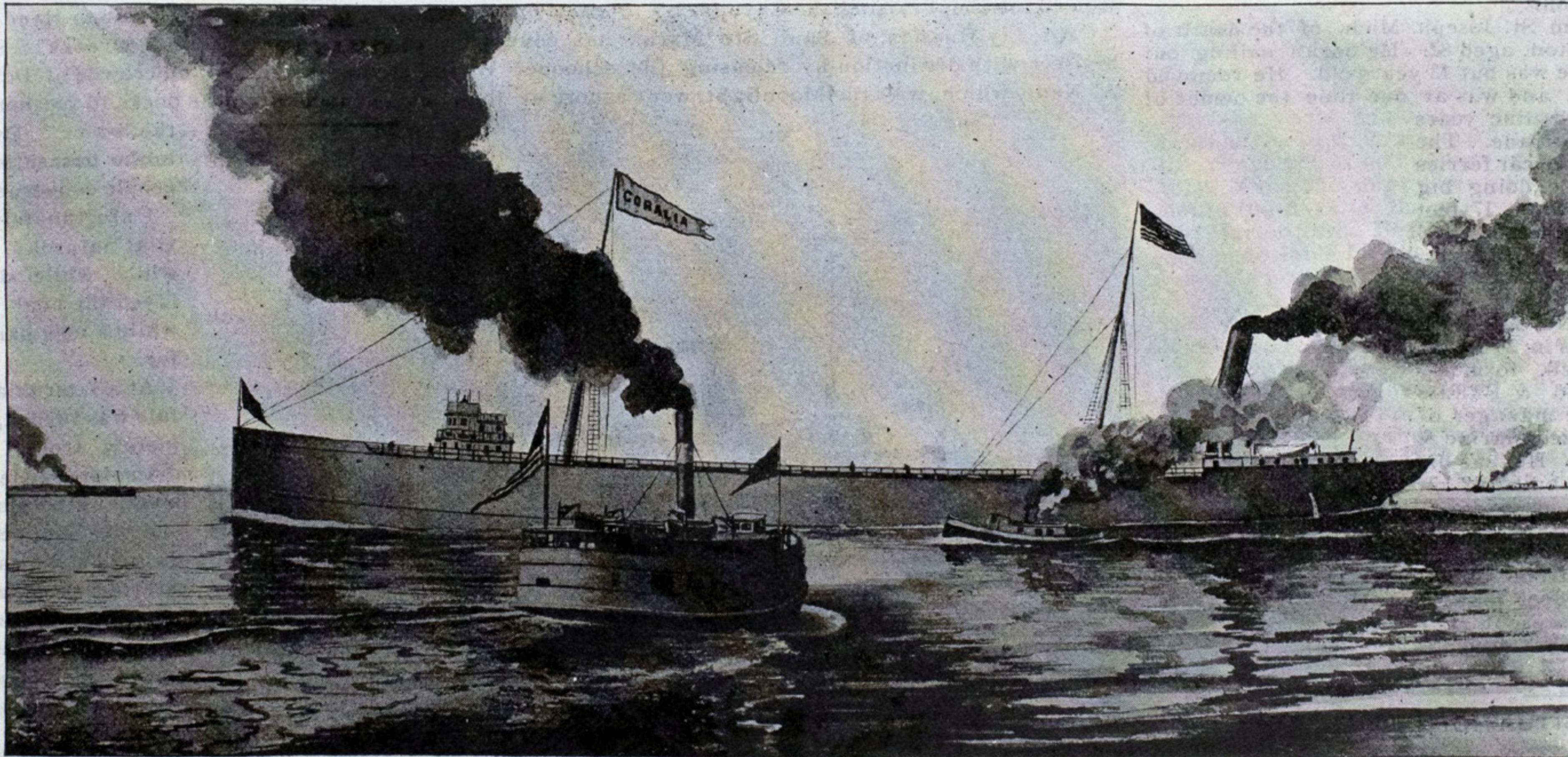
BIDS were opened at the Navy Department on May 2 for furnishing armor for the new battle ships Kearsarge and Kentucky, under construction at the works of the Newport News Ship Building and Dry Dock Company.

NEW YORK'S VOLUNTEER LIFE-SAVERS.

The trustees of the Volunteer Life-Saving Corps for the inland waters of New York announce that their appropriation, which was given by the lower house of the New York assembly, was not reached by the Senate, and they have therefore no funds for 1896, and will have to depend upon the friends of the cause to maintain it. About 300 stations are partially supplied with equipment. The board have spent much time and \$2,000 of their own money on the service. There is no money on hand to pay for service medals already awarded. During the past year 264 lives have been saved, and in the two years of State aid and extension to all the waters of the State over 400 lives have been saved. The annual expenditure is only about \$6,000 per year. All contributions should be sent to Hon. Henry A. Abell, Volunteer Life-Saving Corps, World Building, New York, who will duly acknowledge every contribution and supervise all expenditures.

COAST AND FOREIGN BUILDING.

The British Admiralty has placed orders for the construction of 20 torpedo-boat destroyers. Of these two are to have a speed of 32 knots, and the remainder of 30 knots. The two fastest boats are to be constructed, one by J. J. Thornycroft & Co., Chiswick, and the other by J. & G. Thompson, Clydebank. The remaining 18 boats



THE STEEL STEAMSHIP CORALIA.

This ship is the largest on the Great Lakes, being 432 feet in length. She has carried 5,066 tons of 2,000 pounds each on 15 feet 9 inches draft. She is a duplicate of the Sir Henry Bessemer, launched last Saturday for the Rockefeller syndicate. The cut is made from a pen drawing made by Mr. S. W. Stanton, of Smith & Stanton, publishers of Seaboard, when on a trip to the lakes last winter, and has been kindly loaned to the RECORD by that paper. The owners have been unsuccessful in obtaining good photographs of the CORALIA.

and Eber Ward, were appointed to act as escort to attend the burial at Cleveland.

Mangr. David Carter, of the D. & C. S. N. Co., tendered the courtesies of the Line to the escort committee to Cleveland and return.

At a special meeting of the Lake Carriers' Executive Committee, held on Monday afternoon, called in respect for the memory of Capt. E. M. Peck, the following preamble and resolutions were adopted:

Whereas, For many years Capt. E. M. Peck has been interested in lake commerce as master, builder and owner, and to him the Lake Carriers' Association is much indebted for his good counsel, advice and efficient services in its formation and maintenance;

And whereas, For many years its members have individually, in their friendship with him, received and enjoyed the benefits of social intercourse with one who was of kind heart, generous disposition, cordial nature, honorable purposes and generous fellow feeling;

Therefore, be it resolved that in the death of Capt. E. M. Peck, the Lake Carriers' Association has lost a useful, prominent and influential member, whose good judgment, wise counsel and zealous advocacy have done so much to promote and improve the commerce and methods of commerce on the Great Lakes.

Resolved, That we deplore the loss of a member whose friendship we prized, whose high character and greatness of heart we appreciated, whose personal worth created our respect and whose cordial ways and manners won and held us bound to him in good fellowship and affection.

There were two bidders only, the Carnegie Steel Co., of Pittsburgh, and the Bethlehem Steel Company, of Bethlehem, Pa. On the Kearsarge armor the aggregate bid of the Carnegie Company was \$1,568,162; the Bethlehem Company, \$1,573,390. On the armor for the Kentucky the aggregate bid of the Carnegie Company was \$1,572,417; the Bethlehem Company, \$1,569,750. The specifications provide that the Navy Department will furnish nickel free of cost to the contractor for use in the manufacture of nickel steel. The amount of armor required is about 6,000 tons, besides the necessary bolts and hollow forgings.

SENATOR HILL, in the United States Senate on Saturday, offered an amendment to the Naval Appropriation bill, which was agreed to, empowering the Secretary of the Treasury to detail revenue cutters to enforce order at regattas on navigable waters.

The Kingston British Whig, (May 9), said: "Capt. George McLeod, who was here yesterday in the interests of the damaged steamer G. W. Morley, is the man, above all others, to whom Canadian mariners go for advice and assistance when in difficulties on the 'other side', and he is always ready and willing to assist to the utmost limit of his power. He is probably the most widely known man on the lakes."

have been given out as follows: Three are to be built by the Fairfield Shipbuilding Co., Govan; three by Thornycroft & Co.; two by R. & W. Hawthorn, Leslie & Co., Hebburn-on-Tyne; two by Palmer's Shipbuilding Co., Jarrow-on-Tyne; two by Wm. Doxford & Sons, Sunderland; two by Laird Brothers, Birkenhead; two by Earle's Shipbuilding Co., Hull; and two by the Naval Construction Co., Barrow-in-Furness.

Wooden shipbuilding still goes on in Nova Scotia. At Port Greville there are five schooners almost ready for launching, and three in the yard of H. Elderkin & Co.

A new cruiser for Canadian fisheries protection is to be built at Shelburne, N. S., by Joseph McGill.

The Harlan & Hollingsworth Company, of Wilmington, have received the contract for building a new 130-foot steel tug for the Standard Oil Company.

NEWLY ENROLLED TONNAGE.

Following is a list of lake vessels to which official numbers and signal letters have been assigned by the Commissioner of Navigation, for the week ending May 2:

Official No.	Rig.	Name.	TONNAGE.		Home Port.	Where Built
			Gross.	Net.		
107,221	Schr.	Abyssinia	2,037.66	1,916.68	Port Huron	W. Bay City
127,132	St. p.	City of Buffalo	2,398.27	1,262.83	Cleveland	Wyandotte
121,019	St. s.	Fred A. Lee	60.12	40.89	Port Huron	Port Huron

FLOTSAM AND JETSAM.

The depth of water in Sturgeon Bay canal is 13.7 feet. There is only about 9 feet of water at Peshtigo, Wis. There is 14 feet 10 inches of water in Sheboygan, Wis. harbor.

William Marshall has been appointed keeper of the new Round Island light-station.

Lake Superior transportation companies want the government to acquire Torch Lake Canal.

The Darius Cole and City of Toledo will begin daily trips between Detroit and Toledo on June 10.

The construction of a lighthouse on the pier at Port Clinton has been ordered, and it will probably be built before July.

The M. I. Wilcox Cordage & Supply Co., have purchased the tug Jessie P. Logie, and will operate her as a delivery boat.

The Argo now tows the John O'Neil, Chas. Wall, and Nelson Bloom. The tow has a lumber capacity approximating 5,000,000 feet.

R. D. MacKay, of Hamilton, has purchased the steam barge Sir S. L. Tilley, Collingwood, and her consort, the schooner Merritt.

Frank R. Bogan has been appointed keeper, Thomas Gallager assistant and Wm. A. Burke second assistant at Spectacle Reef Light.

The tug Silver Spray will be stationed at Copper Harbor this summer, with Capt. Purdy, of Whitefish Point, as master, and Wm. Scott as engineer.

B. B. Inman has libeled the tug Medina at Superior, in a claim of \$4,921.15 as a result of colliding with and sinking the tug Pathfinder on Sept. 1, 1895.

Joseph Beauvais and A. L. Coulter, of Charlevoix, have begun work on the new passenger dock at Mackinaw City, and will push it through to completion.

The Northern Steamship Co. has bought the schooner S. Clement from Capt. B. B. Inman, and will use her as a lighter for harbor work at Duluth and Superior.

Sidney Cranston, the deck-hand on the Neosho, whose skull was fractured by a fall into the hold of the Neosho, has been operated upon by the Tracy Hospital, Escanaba, and may survive.

On the recommendation of Hon. J. F. Wood, comptroller of inland revenue, an order in council has been passed abolishing the fee of 50 cents charge to owners of vessels navigating the inland waters of Canada for entering or clearing at a port.

The Benton Harbor & Eastern Transit Co. has organized with \$1,000,000 capital stock. One hundred miles of railroad will be built and a line of steamers operated to Chicago and Milwaukee. Chicago men are in the enterprise.

Keeper John Nolen, of Gull Rock Light, writes THE RECORD that on May 2, the tug A. W. Colton, passed around Keweenaw Point with a raft of logs containing 3,000,000 feet of lumber, owned by the Nestor estate. This is the earliest date on record for a raft to round Keweenaw Point.

Mrs. Helen M. Young has taken out a license at Cincinnati as mate of a steam vessel, and is acting as mate on the steamer Lee H. Brooks. Mrs. Callie L. French, of New Orleans, recently renewed her license as master and pilot on the Ohio and Mississippi River. She is captain of the Ruth.

Nearly 20,000,000 feet of lumber was destroyed by fire at Ashland Sunday. Three lives were lost, and the money loss is \$478,000, on which there is an insurance of \$350,000. The Shores Lumber Co., lost \$250,000 on plant and dock and 140,000 on lumber stocks. The losses of other parties aggregated \$88,000.

Capt. Johnson, of the Cambria, on her last trip down, was called to the assistance of the yacht Cass, of Detroit, with five Detroit men aboard, including the owner, George Lewis. The party had been on a fishing excursion, and had got the yacht aground on Pelee Island Reef. After she was released she began leaking

badly and they fired distress signals with their guns. The party were landed at Ashtabula and returned to Detroit on the Sawyer.

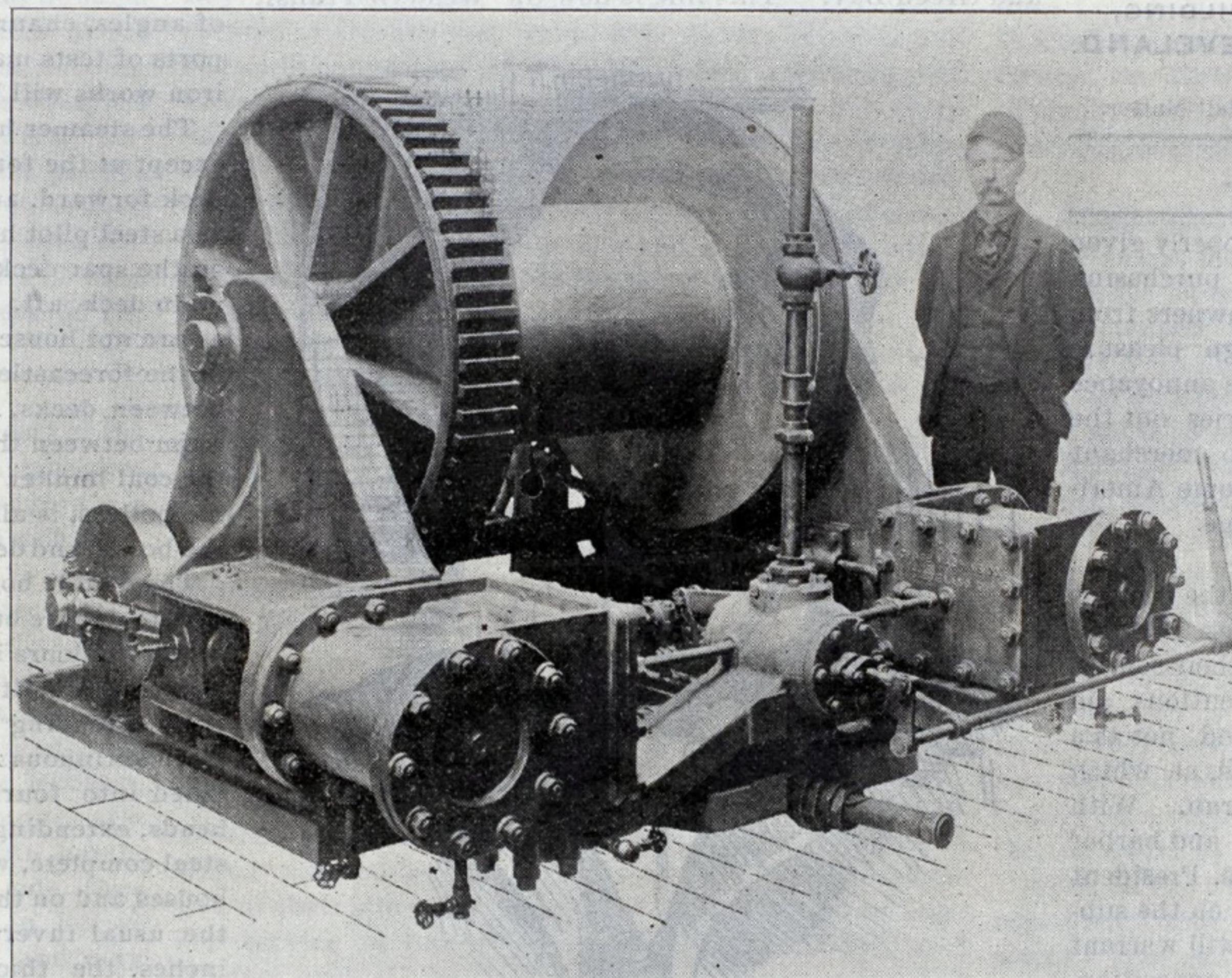
Capt. A. B. McArthur, formerly of the Christopher Columbus, while on his way to Duluth to take out the new whaleback steamer narrowly escaped drowning at the Sault Sunday night. In getting ashore from the B. L. Pennington at the lower government dock, he fell into the river and was rescued very much exhausted by the Pennington's crew.

Traffic through the St. Mary's Falls canal was delayed ten hours, from 8 p. m. Thursday to 6 a. m. Friday, by the breaking of one of the pipes connecting the valve engines at the lower entrance of the canal. About two-thirds of the water had to be pumped out before another valve could be put in. Repairs were made in remarkably quick time.

The Canadian ship canal opened for service at 3 o'clock Thursday afternoon. The first boat locked through was the American steamer Thomas Cranage. The opening of the canal greatly reduced the number of boats of the big fleet which had been detained from 24 to 36 hours all week. From 40 to 50 boats were awaiting lockage all the week, and the lock force was kept decidedly busy.

VISIBLE SUPPLY OF GRAIN.

As compiled for THE MARINE RECORD by George F.

**THE CHASE TOWING MACHINE.**

Stone, Secretary Chicago Board of Trade, May 9, 1896:

THE CHASE TOWING MACHINE.

The Chase Machine Co. have received advices from Washington that a patent has been granted to them on their steam towing machine, for which application has been pending for some little time. The machine is only a simple modification of the Chase Machine Co.'s ordinary deck engine.

The device is well shown up in the accompanying picture, but is worthy a full description. At one end of the drum which the tow line is wound is a gear wheel some 51 inches in diameter which meshes with a gear operated by two 10x10-inch cylinders. The throttle is operated either by hand or automatically, as desired. The throttle valve is governed by the cross-head of the engines, and after the slack of the tow line is wound up, any additional strain on the line beyond the ordinary strain of the towing vessel causes the line to pay out slowly, but at the same time these revolutions of the drum cause the throttle to open, thus admitting the steam necessary to wind up the drum again.

The main valve is in the middle at the after end of the machine, and steam passes from it both ways to the cylinder on either hand. The throttle to this valve is worked by a most ingenious arrangement. A shaft runs athwartships on the machine, extending from one cross-head to the other. In the middle it meshes with a gear which turns a shaft running fore and aft. On this is a thread, which, when the machine is moving automatically, engages teeth at the end of a lever operating the throttle valve. There are two hand levers, one of which is used to throw on or off the automatic gear, and the other to move the throttle by hand. They are close together, and the change from hand to automatic control, and vice versa, can be effected in an instant. Another peculiarity of the machine is a powerful brake. By screwing it up, it tightens a band which passes around the wide flange at the end of the drum, and by this means the evolutions can be stopped by a few turns. This brake is said to be powerful enough to stop the machine with a full head of steam on.

Besides the simplicity in construction of the machine, which gives it little chance to get out of repair, it can be used, when not engaged in caring for the tow line, as an ordinary deck hoist, if desired, by means of two spools which can be placed one at either end of the axis. This is an economy in equipment that will be appreciated by both builders and owners. The illustration given here is photographed from a machine now in their shop, which is connected with the shop boilers, and can be operated at any time for the satisfaction of visitors.

THE LITERARY TABLE.

"In the Balkans—The Chess-board of Europe," is the title under which Henry Norman, that famous correspondent of the London Chronicle, discusses in June Scribner's the European "Eastern Question" in a masterly manner. In the second installment of "Vailima Table-talk," Isobel Strong, the stepdaughter of Robt. Louis Stevenson, tells some more interesting things about that great author. A second article on "The Trotting Horse," by Hamilton Busbey, is another feature of the June number of Scribner's.

Harper's Magazine for June will open with a vivid descriptive sketch of "A visit to Athens," by the Rt. Rev. Wm. Croswell Doane. "The Greatest Painter of Modern Germany" will be the title of an appreciative paper on Adolph Menzel, by Dr. Charles Waldstein, illustrated with specimens of the artist's work. E. T. D. Chalmers will contribute an enthusiastic article on freshwater salmon fishing in Quebec, under the title "The Ouananiche and its Canadian Environment." The second of Howard Pyle's papers on his unconventional journey "Through Inland Waters," charmingly depicts a quiet life on canal and Lake Champlain. James Herbert Moore will contribute a poem, "The Sea."

CITIES WHERE STORED,	WHEAT. Bushels.	CORN. Bushels.	OATS. Bushels.	RYE. Bushels.	BARLEY. Bushels.
Albany		60,000	80,000		
Baltimore	315,000	323,000	121,000	32,000	
Boston	91,000	242,000	17,000		20,000
Buffalo	1,252,000	507,000	359,000	268,000	215,000
" afloat					
Chicago	15,212,000	5,142,000	2,347,000	366,000	10,000
" afloat					
Cincinnati	9,000	2,000	29,000	1,000	30,000
Detroit	205,000	22,000	9,000	12,000	1,000
" afloat					
Duluth and Superior	9,736,000		24,000	195,000	224,000
" afloat					
Indianapolis	68,000	18,000			
Kansas City	1,102,000	76,900	44,000	29,000	
Milwaukee	820,000	2,000	1,000	366,000	34,000
" afloat					
Minneapolis	17,907,000	64,000	722,000	82,000	27,000
Montreal	681,000	51,000	429,000	6,000	61,000
New York	874,000	955,000	1,401,000	9,000	1,000
" afloat					
Oswego	9,000	94,000			
Peoria	15,000	3,000	189,000	3,000	
Philadelphia	103,000	88,000	108,000		
St. Louis	878,000	308,000	104,000	1,000	
" afloat					
Toledo	40,000	94,000	26,000		
" afloat					
Toronto	573,000	91,000	51,000	127,000	
" afloat					
On Canal	30,000	21,000	104,000		48,000
On Lakes	768,000	249,000	715,000	58,000	113,000
On Mississippi	3,189,000	1,088,000	703,000		318,000
Grand Total	54,000,000	10,337,000	7,852,000	1,555,000	1,112,000
Corresponding date 1895	59,623,000	7,981,000	6,155,000	145,000	240,000



(ESTABLISHED 1878.)

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CLEVELAND, O., MAY 14, 1896.

THE House of Representatives has very properly given a black eye to the practice of Americans purchasing yachts abroad by excepting such American owners from the privileges extended to bona fide foreign pleasure craft, of immunity from tonnage tax and the annoyance of entering and clearing. This simply carries out the idea of protection which has been extended to merchant shipping and covers up a loop hole of which some American Anglomanians have been taking advantage.

IT is a genuine relief to know that, after all the rumpus that has been raised in the Senate this week over the River and Harbor Bill, the Solons came to their senses, and recognized the bill as a measure of conscientious aid to the general commerce of the country, and not as a law providing for the distribution of spoils, at which everyone should feel privileged to have a grab. With the heavy affirmative vote which the river and harbor bill has received in both houses of Congress, President Cleveland, notwithstanding his known views on the subject, will hardly veto it. The circumstances will warrant him in allowing it to become law without opposition, although he will hardly attach his signature to the bill.

THE prospect is excellent for the completion of the large new American lock at the Sault, and now only the problem of dredging confronts the navigators and the engineers. The dredgers have the entire season in which to complete their work, but admit that by making an effort they can finish much earlier. It has been proposed that the Secretary of War should offer bonus enough to make it interesting for the contractors in case they would push the work. It is a question whether the Secretary could make a large expenditure for this purpose on his own authority; but if it can be done, it would certainly serve a good end. Beside the delays that would thus be obviated, the vessels will be able to increase their cargoes very materially, as the shallows at Sailors' Encampment will have been dredged out by that time, thus wiping out all distinction between Lake Michigan and Lake Superior draft.

TOLEDO has been chosen as the meeting place for the great international regatta. Toledo did not have the facilities afforded by some of her competitors, but she has two yacht clubs, and the "hustling" qualities which are calculated to get almost anything these days. There is one feature about Toledo's action that is to be regretted, and that is the offer of a money prize of \$1,500. Yachting has always heretofore been kept off a mercenary basis, and has therefore been pre-eminently a gentleman's sport. It would have been much better had the money

been put into cups, and the benefits to yachting would have been more lasting. Toledo has shown the right spirit of generosity, but if the form of prize can yet be amended, we hope it will be done. We believe also that the yachtmen will assent to such a proposition. There are, of course, two sides to the question, and the young men who are at considerable expense with their yachts are entitled, in the opinion of many, to some reimbursement for their outlay; but the putting up of money prizes is certain to be demoralizing to the sport, and this will be demonstrated before many seasons.

IN MEMORY OF CAPTAIN RICE.

The funeral of Capt. John Rice, whose sudden death was announced last week, took place in Buffalo Saturday, and was attended by a large contingent of the marine men with whom he had been so closely associated for so many years.

Capt. Rice was born at Hunter's Point, on Lake Ontario, in New York State, January 6, 1834. His father's family lived at Youngstown for a number of years, but when he was 13, Capt. Rice went to Buffalo and began to sail on the lakes. When he was 19 he was master of a vessel, and in the same year became master of the brig Clarion. A few years later he came into the employ of the New York Central Railway Company, sailing the passenger Rocket and other vessels of the old People's Line, plying between this city and Chicago and Green Bay. This line is now the Western Transit



THE LATE CAPT. JOHN RICE.

Company. He continued to sail these steamers until 1862, when, at the solicitation of the late Dean Richmond, president of the company, he accepted the position of fleet superintendent for the same line, with headquarters in this city.

At about the same time he formed a partnership with the late Robert Mills and Patrick Walsh in the dry-dock and shipbuilding business at Ganson street and Buffalo Creek. Later the firm was incorporated as the Robert Mills Dry-dock Company. At the time of his death and for a number of years previous, Capt. Rice was president of the company. He was also for many years engaged in the marine insurance business with the late F. B. Fortier, and he was regarded as one of the best informed men connected with the business; in fact, he was considered an almost infallible authority in such matters. He will be very greatly missed by many vesselmen who have been in the habit of relying on his advice and judgment in insurance matters. At the time of his death he was one of the managing owners of the Red Star Line of lake steamers.

Capt. Rice was also very prominently identified with the Lake Carriers' Association, in which he always held important places on standing and special committees.

On October 9, 1878, he married Miss Frances Mitchell, daughter of Judge William T. Mitchell, of Port Huron, Mich., who with one daughter, Minnie Godfrey Rice, survives him.

SHIP BUILDING AND REPAIRS.**LAUNCHES OF THE WEEK.**

Cleveland distinguished herself as a ship building port once again on Saturday last, by launching two 400-footers within a few minutes.

THE SIR HENRY BESSEMER.

The first steamer of the Bessemer Steamship Co.'s new fleet, the Sir Henry Bessemer, was launched at the Globe Iron Works Co.'s shipyard promptly at 2:30 o'clock. The christening ceremony was performed by Miss Kate B. Crowell. Her main hull dimensions are 432, 412x48x28. She has the same outward appearance as the Coralia, and the construction is much on the same order, the only difference being in favor of even greater strength. All plating is of open-hearth mild steel, tested, according to the specifications, as follows: Tensile strength not less than 54,000 and not exceeding 62,000 pounds per square inch; limit of phosphorus not to exceed .08; elongation to be not less than 24 per cent in 8 inches, and radiation to be not less than 45 per cent. Plates not to be run over or under theoretical weight more than 2½ per cent. Rivets of first-class quantity of iron rivet-material of not less than 50,000 tensile strength. Materials to be tested at maker's works to these requirements by a disinterested party to represent both steel maker and ship builder; provided, that in case of angles, channels, beams and Z bars, the certified reports of tests made at the laboratory of the Pencoyd iron works will be accepted by the owner.

The steamer has main deck beams, but no laid deck except at the forward and after ends; also a forecastle deck forward, and one steel deck house forward, as well as a steel pilot house. She has also a steel deck house on the spar deck, aft, with galley and dining rooms on main deck, aft. Accommodations for such of the crew as are not housed in the after deck house are provided in the forecastle. Engines and boilers are placed aft, between decks, the boilers athwartships, with fire room between them. The boiler house is of steel, and the coal bunker located between decks, next forward of the boilers, is also of steel, carried up to the height of the boiler and deck house aft.

The double bottom, which is five feet deep from collision to engine bulkheads, is divided by center keelsons and solid floors into eight compartments, for water ballast, and is built on the cellular system, solid longitudinals extending from the bottom plating to the tank top, continuous fore and aft. The vessel's hold is divided into four compartments by three screen bulkheads, extending to the spar deck. The spar deck is of steel complete, without wood covering except inside the houses and on the forecastle deck. The engines are of the usual inverted triplex type, 25, 41, and 66 by 42 inches, the thickness of metal in the high pressure cylinder being 1⅓ in., the intermediate 1½ in., and low pressure 1⅔ in. The high pressure cylinder is operated by a valve of the piston type, the other two being double-ported slide valves. The valve gear is the usual link motion, with two eccentrics. The piston rods are of the best forged steel, and are 5⅓ inches in diameter; the connecting and eccentric rods are of wrought iron. The condenser and air pump are placed at the back of the engine, the latter being worked from the crosshead of the intermediate cylinder.

The boilers are of the Scotch type, four in number, 11 feet 2 inches in diameter and length. Each boiler has three 36-inch furnaces, with a total heating surface for the four boilers of 6,300 square feet. The boilers are allowed a working pressure of 175 pounds. The screw is 14 feet in diameter by 16 feet lead. The ship has one steam capstan aft and two amidships, and a steam capstan-windlass forward. She has a full auxiliary equipment, including electric lighting system. She carries two pole spars.

The Bessemer will be out in June, with Capt. E. M. Smith in command, and Mr. Richard Morton as chief engineer.

THE QUEEN CITY.

The Steamship Queen City, in course of construction at the Cleveland Ship Buildings Co.'s yard, for the Zenith Transit Co., of Duluth, was launched within five minutes after the whistles were heard to salute the Sir Henry Bessemer at the Globe yard. The Queen City, named in honor of Buffalo, was christened by Miss Jes-

sie Wallace, of Philadelphia, niece of President Robert Wallace, of the Cleveland Ship Building Company.

The "Queen City" is built of open-hearth mild steel throughout, measuring 400 feet from the stem to stern-post, by 48 feet beam and 29 feet depth at the shallowest point amidships, with about six feet sheer forward and four feet sheer aft. Her water bottom is five feet deep, with capacity for 2,500 tons of water-ballast. It is divided into eight compartments, and emptied by means of two large duplex pumps. The top of the tank is flush-plated with heavy steel. The scantlings are all of the channel for section and the plating is lap jointed. There are twelve cargo hatches, and the deck is left clear of houses to allow of rapid handling of cargo.

Forward will be located quarters for the crew, pilot house and Texas; aft, below decks, will be located the dining-quarters and engineers' accommodations. There will be nothing on the spar deck, aft, except skylight over the engine room and dining room. All the houses will be made of steel and lined throughout with quarter-sawed oak. She will have steam windlass and capstan forward, steam capstan aft, and two steam capstans on the spar deck, located equal distances from forward and aft, also one of the builders' double hoisting engines located on spar deck. Steam steering engine is located in the engine room.

She will be lighted by electricity, having two compound engines direct connected to two Elwell-Parker generators. There will be three pole spars, but no sails. Motive power will consist of one of the builders' triple expansion engines, 21, 38, and 63 by 40 inches, turning a screw 13½ feet in diameter. She will be equipped with two Babcock & Wilcox water tube boilers, furnishing steam to the engine at a pressure of 225 pounds to the square inch. She is expected to be completed and ready for sea June 15. Capt. Ralph J. Lyons will command the new boat and Mr. J. H. Hayes will have charge of her machinery. Both officers were in the steamer Zenith City last year.

ANOTHER WHALEBACK BARGE.

Whaleback barge 137, which will be the consort of the new steamship Frank Rockefeller, was also launched last Saturday, at the American Steam Barge Co.'s yard, West Superior. She measures 360 x 44 x 26 feet, and will be operated by her builders. She is twenty feet shorter than the Rockefeller, with the same beam and depth, but owing to the absence of engines will carry 100 tons more cargo. Her capacity on 14½ feet draft is 4,100 gross tons, but with 20 feet draft can take on 6,750 net tons. Hull construction is very similar to that of the Rockefeller, lately described in the RECORD, the hull angles being substituted for the channel system of framing. In addition to her twelve main hatchways, she has eleven hatchways on the port side, thus allowing twenty-three ore spouts to be placed in her at once. This will greatly facilitate loading and may obviate the necessity of trimming. She is fitted with steam capstans, steering apparatus, etc., complete.

SCHOONER ABYSSINIA.

The schooner Abyssinia, the second of the fleet building by Capt. James Davidson at his shipyard, West Bay City, was very successfully launched Monday afternoon, without ceremony and almost ready for sea. The Abyssinia is a sister ship of the Armenia, which was launched about two weeks ago. The Armenia has just brought down, as her first cargo, 92,000 bushels of wheat, 2,760 net tons, on a draft of only 13 feet 10 inches, and the Abyssinia has, of course, the same capacity.

SCHOONER MELROSE.

We inadvertently omitted to mention last week the fact that the schooner Melrose, built by and for the Montreal Transportation Co., was launched on Tuesday May 5, at Kingston. She is a handsome craft and will prove a large carrier. She will tow behind the steamer Rosemount, building in England for the same company.

DESCRIPTION OF BARGE A.

The small car ferry barge which was built at Peshtigo for the Lake Michigan Car Ferry Transportation Co., and which was launched on Wednesday of last week, was christened Barge A. She is of the gunwale type, and measures 133 feet in length, by 38 feet beam, and 10 feet depth, with bulwarks 4½ feet high. With the exception of the keel, which is of white oak, 12x12 inches, the barge is built entirely of Norway pine. Her framework, deck-beams and sides, including bulwarks,

are 8x8 timbers, edge-bolted together, the bolts 12 inches apart with three-fourth inch iron. Three longitudinal bulkheads 8x8 inches, same as sides, edge-bolted every 12 inches, divide the hull into four compartments. These bulkheads are strengthened by 308 fore-and-aft and 52 athwartships (double) braces. These braces are opposite one another. The fore-and-aft braces are 3x12 inches and the athwartships braces 6x8 inches. The deck and bottom is of three-inch pine and her bilge keelsons 6x8 inches. Four white oak timberheads 12x12 inches—one on each bow and two in the center—will be used for towing purposes. She will be towed with a bridle line. The timberheads are strengthened by a stick of oak timber 10x10 inches running athwartships. She will be steered from the forward end.

The barge will have three tracks and will accommodate 12 cars, four on a track. She will draw about 12 inches of water when light and two feet when loaded. As has been stated in these columns heretofore Barge A will be used for handling freight between Chicago and South Chicago. There will be no tracks at the Chicago dock. Freight will be received at the dock and loaded into the cars on Barge A and when loaded will be towed to South Chicago and the cars run out on the apron of the terminal dock there. From there they will be transferred to the larger ferries and taken to Peshtigo for delivery to the W. & M. railway.

A new car ferry line will soon be in service on Green Bay. The Green Bay Transportation Company, incorporated at Oconto last week, will operate it and it will be run in connection with the Wisconsin & Michigan or Lake Michigan Transportation Company's car ferry lines. The Wisconsin & Michigan Railway has been endeavoring ever since its organization to secure connection with Green Bay and Oconto, and even considered for a time the construction of a rail line to those cities. The car ferries have solved the problem. Two new car barges will be built and operated between Green Bay and Oconto and Peshtigo harbor, the northern terminus of the Chicago car ferry line. W. A. Holt and George Beyer, of Oconto, are incorporators of the company, but the capitalists interested in the Wisconsin & Michigan railway are also supposed to be backing the Green Bay car ferry line. The new line will be a strong competitor for business in these cities. The Wisconsin & Michigan railway will soon have an entrance to every important city on Green Bay.

THE STEAMER IOWA.

Special Correspondence to The Marine Record.

MANITOWOC, MAY 12.—The new wooden screw steamer built for the Goodrich Transportation Co., of Chicago, by Burger & Burger, of Manitowoc, was successfully floated at 5 p. m., on Monday, 11th inst. This vessel, which was designed by the Goodrich Transportation Co., at their office in Chicago, for winter as well as summer service on Lake Michigan, is 203 feet on keel and 218 feet over all, beam on main deck over guards 36.2 feet, and beam molded 31.2 feet by 14 feet molded depth. She is built of the best Wisconsin oak and has a truss built on sides of hull extending as high as under side of cabin deck. The truss is formed by a top chord of two steel channel bars, filled in with oak nine inches square and strongly scarped. Her steel diagonal strapping is a 6x½-inch plate and spaced about 5 feet in the square extending for about three-fourths of the vessel's length, being riveted at top to steel channels and bolted to framing at under side of bilges. The truss posts, 9 inches square and supporting the top chord, extend from below beam knees and are mortised into top chord, each truss post being connected at top to heavy beams by strong knees. This form of truss is much stronger and neater than the old style of arches for vessels of this type. The stem and apron piece is over 3 feet thick, molded, and covered with heavy steel for breaking ice. The hull is sheathed with No. 12 steel from below light water line and well up under guards for winter service. On the cabin deck are 52 staterooms for 108 passengers, and on the hurricane deck 24 staterooms for 48 passengers. The rooms on the hurricane deck will be reached from a spacious stairway from the main saloon. The large vestibule at top of stairway is finished in hardwood and handsomely upholstered for the comfort of ladies. The after staterooms on this deck can be reached from a stairway at after end of saloon, and conveniently located to those rooms is a large, well ventilated and commodious smoking room, with all its accessory comforts. The vessel will be lighted throughout by electricity, 365

lamps being used, a light being furnished for every stateroom. The sleeping accommodations are ample without resorting to the system of pull out berths, which destroys the seating capacity for deck passengers. The painting and interior decorating will be done by the firm of Messrs. Crossman & Sturdy, of Chicago. The vessel is furnished with what is a new departure in this type of vessel, namely, brass frame sidelights or air ports made by The Detroit Sheet Metal and Brass Works. The engine is compound, 950 indicated horse power, was built by Chas. F. Elmes, of Chicago. Steam will be furnished from two Scotch boilers, 10 feet diameter by 10 feet 6 inches long and allowed 150 pounds pressure, the tubes being 2½ in. in diameter, made by John Mohr & Sons, Chicago. The cabin and all iron work is by the Manitowoc Building Supply Co. The officers of the new steamer are Captain John Raleigh, Engineer Julius Bushman, Purser C. B. Hamilton, and Steward John A. Williams.

Miss Lulu Barnes of this city very gracefully broke the bottle of champagne on the bow and christened the vessel "Iowa." After the ceremony the guests were pleasantly entertained at the builders' drawing office. Among those present were Mr. and Mrs. Packard, Mr. and Mrs. C. F. Canright, Mr. C. S. Canright, Mr. and Mrs. Ned Platt, Mr. Nagle, Mr. A. Landreth, Mr. Gardner Torrison, Mr. Gus Torrison, Mr. Endress, Mr. and Mrs. Ed. Hubbard, Mr. A. Kanouse, Miss Smith, Miss Locke, Mrs. W. J. Wood, Rev. Mr. Gray, Rev. O. P. Christian, Mr. Carl Smith, Mr. Frank Miller, Dr. G. Henry, Dr. Kittleson, Captain Sweeney, Captain J. W. Gillman, superintendent of the fleet, and W. E. Elliot, chief engineer of the fleet.

SHIPYARD NOTES.

It is expected that the Craig Ship Building Co. will launch one of the car ferry barges next Saturday, the tug Fischer on the 23rd, and the other barge on the 30th.

The steamer E. W. Oglebay, building by F. W. Wheeler & Co., for David C. Whitney, of Detroit, will be launched on Saturday.

The name John Ericsson has been fixed upon by General Manager Bowers, of the Bessemer Steamship Co., for the whaleback building at the American Steel Barge Co.'s yard.

The schooner building at the yards of Abram Smith & Sons, Alconac, will be launched about June 1st.

Work at the Globe yards is just now slightly hindered by the strike of helpers.

At Wheeler & Co.'s shipyard the men quit work at noon every alternate Saturday, which is pay day, the pay for that half day being deducted. On the intervening Saturdays they work until 4 o'clock, making up the two hours by working overtime during the week.

Work on the Union Steamboat Co.'s new boat building at the Union dry-dock, Buffalo, is about half completed. She will be launched in August. W. J. Conners' steam yacht Enquirer will be ready for launching in about two weeks, and will be out in June.

GENERAL REPAIR WORK.

CLEVELAND.—The steamer G. W. Morley is in the Cleveland dry-dock, and Capts. George and Dan McLeod and C. E. Benham are holding a survey on her. Several frames are broken, and some cutting out has to be done to-day before the survey can be completed. The Mather left the dock during the week and the W. P. Thew was in for a new wheel and bottom calking. She also repaired her machinery. The tug Allie May was in for repairs to her stem, and the tug C. E. Benham had some calking done.

The Murphy got out of the Ship Owners' dry-dock Monday night. L. P. & J. A. Smith's Dredge No. 9 was docked for some stern repairs necessitated by collision with the Allie May. The yachts Priscilla and Neva had their bottoms cleaned. The Nahant was calked all over, and the Thomas Gawn, which recently struck the submerged wreck of the Adams, got a new forefoot and a piece of stem.

CHICAGO.—At the Chicago Ship Building Co.'s yard the barge Empire State was in dock to have leaks stopped. The tug Mollie Spencer was at the derrick and had her new boiler put on board. The schooners Fanny Neil and D. S. Austin have received some calking.

SUPERIOR.—The Emily Weed has been in dry-dock for new rudder, shoe, and crank pin. Two plates had to be replaced. She was surveyed by J. R. Oldham, of Cleveland. The North Land and 104 are also getting repairs. The Inman tug Bob Anderson is going to Cleveland for a new boiler.

THE MARINE RECORD.

SAULT CANAL COMMERCE FOR 1895.

General Superintendent Wheeler, of the St. Mary's Falls Canal, has completed a report supplementary to that published in THE RECORD at the close of last season. This report gives the estimated values of all freight passing through the canal last season as follows, the values being upon articles at their ports of destination:

ITEMS.	Quantity.	Price Per Unit.	Valuation.
Coal, hard, net tons.....	4,80,477	\$4.25	\$ 1,872,027.25
Coal, soft, net tons.....	2,133,885	2.40	5,121,324.00
Flour, barrels.....	8,902,302	3.75	33,883,632.50
Wheat, bushels.....	46,218,250	.65	30,041,862.50
Grain, other than wheat, bu.....	8,328,694	.30	4,164,347.00
Manufactured iron, net tons.....	73,663	50.00	3,883,150.00
Pig iron, net tons.....	26,676	13.00	346,788.00
Salt, barrels.....	2,699,919	.75	2,024,439.25
Copper, net tons.....	107,452	200.00	21,490,400.00
Iron ore, net tons.....	8,062,209	2.77	25,332,318.93
Lumber M. ft., B. M.....	740,700	12.00	8,888,400.00
Silver ore and bullion, net tons.....	100	112.00	11,200.00
Building stone, net tons.....	23,876	10.00	238,760.00
Miscellaneous mdse., net tons.....	463,308	60.00	276,798,480.00
Average value per ton, \$10.60			\$159,575,129.43

The number of registered craft which used the canal during the season was:

CLASS.	No.	Registered Tonnage.	Freight Tonnage.	Passengers.	Valuation.
American Craft.					
Steamers.....	485	466,948	10,140,915	22,189	\$34,759,100
Sail.....	334	210,801	4,349,759	6,099,700
Total.....	819	677,474	14,490,674	22,089	\$40,858,800
Canadian Craft.					
Steamers.....	37	20,421	440,559	9,467	\$ 1,839,500
Sail.....	21	10,475	114,912	194,500
Total.....	58	30,896	555,471	9,467	\$ 2,034,000

The total freight carried by American unregistered craft amounted to 5,655 tons in 139 passages, making an average of 40,1367-2,000 tons of freight per passage.

The amount of freight carried to and from Lake Superior in 1895 was 15,062,580 net tons, which is an increase of 1,866,720 net tons, or 14 per cent in comparison with the season of 1894. The average distance carried was 830 miles, giving a ton mileage of 12,502,548,983. The total freight paid, including cost of handling, was \$14,238,758.02. The average cost per ton was 94½ c. The average distance freight was carried in 1894 was 828.1 miles, and in 1893, 831.9 miles. The freight charge per ton per mile for last season was 1.14 mills in 1894, the advance being due to the higher freights on bulk cargoes. The following table gives in detail the average cost of carrying the different classes of freight:

ITEMS.	Quantity.	Freight Rate.	Freight Charge.
Coal, net tons.....	2,514,362	.37	\$ 952,513.94
Flour, barrels.....	8,902,302	.14	1,246,322.28
Wheat, bushels.....	46,218,250	.044	2,033,603.00
Grain, other than wheat, bushels.....	8,328,694	.045	374,791.23
Manufactured iron, net tons.....	73,663	1.50	110,494.50
Pig iron, net tons.....	26,674	1.05	28,007.70
Salt, barrels.....	2,699,919	.13	35,089.47
Copper, net tons.....	107,452	1.66	178,370.32
Iron ore, net tons.....	8,062,209	.82	6,611,011.38
Lumber, M. ft., B. M.....	740,700	2.00	1,481,400.00
Silver ore and bullion, net tons.....	100	2.33	233.00
Building stone, net tons.....	23,876	1.20	28,651.20
Miscellaneous, mdse., net tons.....	463,308	2.50	1,158,270.00
			\$14,238,758.02

The Canadian freight amounted to 566,251 tons, which is 3¾ per cent of the total freight carried.

The cargo records were made by the steamer Penobscot, which carried 4,294 tons in a single cargo, and the schooner Aurania, which carried 4,392 tons. There were three propeller cargoes of over 4,000 tons, the aggregate being 12,666 tons and the average 4,222; four cargoes over 3,500 tons, aggregating 14,763, and averaging 3,691; ten cargoes of over 3,000 tons, with a total of 32,408, and an average of 3,241 tons; 38 cargoes of more than 2,500 tons, aggregating 100,358 tons, and averaging 2,641 tons; and 101 cargoes of more than 2,000 tons, the aggregate being 228,611 and the average 2,263 tons. In sail vessels and barges there was one cargo exceeding 4,000 tons (the Aurania's); four cargoes exceeding 3,000 tons—a total of 13,120 and an average of 3,280 tons; 16 cargoes of 2,500 tons and upwards—aggregating 41,248 and averaging 2,578 tons; and 21 cargoes exceeding 2,000 tons, the total being 45,612, and the average 2,172 tons.

The greatest number of miles run during the season is to the credit of the propeller Masaba, of the Minnesota Steamship Co., of Cleveland, and amounted to 45,481 miles.

The greatest amount of freight carried by a single

vessel during the season was by the propeller Mariposa, of the same line, aggregating 90,703 net tons.

The greatest number of mile-tons for the same season is to the credit of the Maritana, of the same line, and is 75,287,054.

It is found from the reports of the watchmen stationed at the head and foot of the canal that vessels were delayed at the canal during the season 83,208 hours, or an average of 4 hours and 59 minutes. It also appears from the records that the railway swing bridge across the canal did not delay navigation in a single instance during the entire season nor was the passage of trains delayed by boats.

NOTICE TO MARINERS.

CHANGE IN POSITION OF RAINS WHARF RANGE LIGHTS

The Canadian Department of Marine and Fisheries gives notice that prior to the opening of navigation this year the masts from which the range lights at Rains wharf, in the river St. Mary, Ont., are exhibited, were moved to an alignment about 80 feet northward of the old alignment, so that the range lights are now in the same alignment as the American range lights at Point of Woods, and mark, as nearly as may be, the axis of the improved channel. The front range light now stands on the shore north of Rains wharf. The lantern is elevated 21 feet above water. The rear light mast stands 436 feet S. E. ¼ E. from the front light. The lantern is elevated 26 feet above water. In other respects the range is unchanged, and the two lights in one guide through Dark Hole Passage as before.

CABOT HEAD LIGHT AND FOG ALARM.

The Canadian Department of Marine and Fisheries gives notice that a light and fog alarm station, established by the government of Canada at Cabot Head, on the west shore of Georgian Bay, in the North Riding of Bruce, Ont., will be put in operation on May 18. Magnetic bearings are: Lat. N. 45° 14' 45"; Long. W. 81° 17' 25". The lighthouse stands on the top of the cliff, about one-third of a mile (nautical) eastward from the entrance to Wingfield Basin, at the point of Cabot Head which projects farthest north on the ordinary course of vessels. The site is level and elevated 35 feet above water. The light building consists of a tower and dwelling house combined, built of wood, painted white. The square tower rises from the east corner of the building, and is surmounted by an iron lantern painted red. The height of the building from the ground to the vane on the lantern is 45 feet.

The light will be a group revolving white light, showing three bright flashes with intervals of 20 seconds between their points of greatest brilliancy, followed by an interval of 40 seconds during the greater part of which the light will be obscured, the light completing a revolution in 80 seconds. It is elevated 80 feet above the level of the bay and should be visible 14 miles from all points of approach by water. The illuminating apparatus is catoptric.

The fog alarm building is located on the beach, about 200 feet eastwardly from the lighthouse. It is a square, wooden building painted white, with duplicate horns projecting from a gable in the northeasterly front of the building. These horns are elevated 20 feet above the water.

The fog alarm will consist of blasts of a horn operated by steam and compressed air of 8 seconds' duration with intervals of 40 seconds between them.

The boiler and machinery are in duplicate, so that in case of an accident happening to one part it may be promptly replaced by its duplicate part.

ROUND ISLAND LIGHT STATION.

Notice is given by order of the Lighthouse Board that, on or about May 15, 1896, a light of the fourth order, showing fixed white, varied by a white flash every 20 seconds, will be established in the structure recently erected on the extreme northwesterly end of Round Island, Straits of Mackinac. The light will illuminate 315° of the horizon lying between NNW. ½ W. through westward and northward to WNW. ½ W.—bearings from a vessel. The focal plane of the light will be 53 feet above mean lake level, and the light may be seen 14½ statute miles in clear weather, the observer's eye 15 feet above the lake.

The light will be shown from a black lantern surrounding a square red brick dwelling two and one-half stories high, with red shingled roof. The tower and dwelling stand on a brick pier 40 feet square, rising eight feet above the water. The geographical position of the light will be given later.

ORE STOCKS ON DOCK.

Figures communicated to The Iron Trade Review directly from Lake Erie docks show that stocks of ore at Lake Erie ports May 1st were the smallest since 1892, the total being 1,949,698 tons. This is 693,282 tons less than on May 1st last year and 638,672 tons less than on May 1st, 1894. Though shipments from some of the docks have been light the past winter, others have reduced their stocks considerably. It is to be taken into account, moreover, that the stocks remaining on dock Dec. 1st last were about 400,000 tons less than on the same date in 1894, much more "direct" ore than usual going to the furnaces in the navigation season of 1895.

Another element in the account which makes it impossible to judge from dock stocks how much ore stands between the furnaces and the new supply, is the amount of ore on hand in furnace yards. With some furnace companies, notably one important interest in the Pittsburgh district, this amount is considerable. How rapidly the stocks on docks will be worked off depends much upon the particular requirements of furnaces in piecing out their regular mixtures. Some of these dock ores are standard and will be readily taken up under concessions sufficient to make the price to the furnaces the same as on direct ores. Other lots are not readily salable and may stay on dock for some time. In the figures for May 1, 1896, given below, we have excluded any cargoes of 1896 ore delivered at Lake Erie ports before May 1:

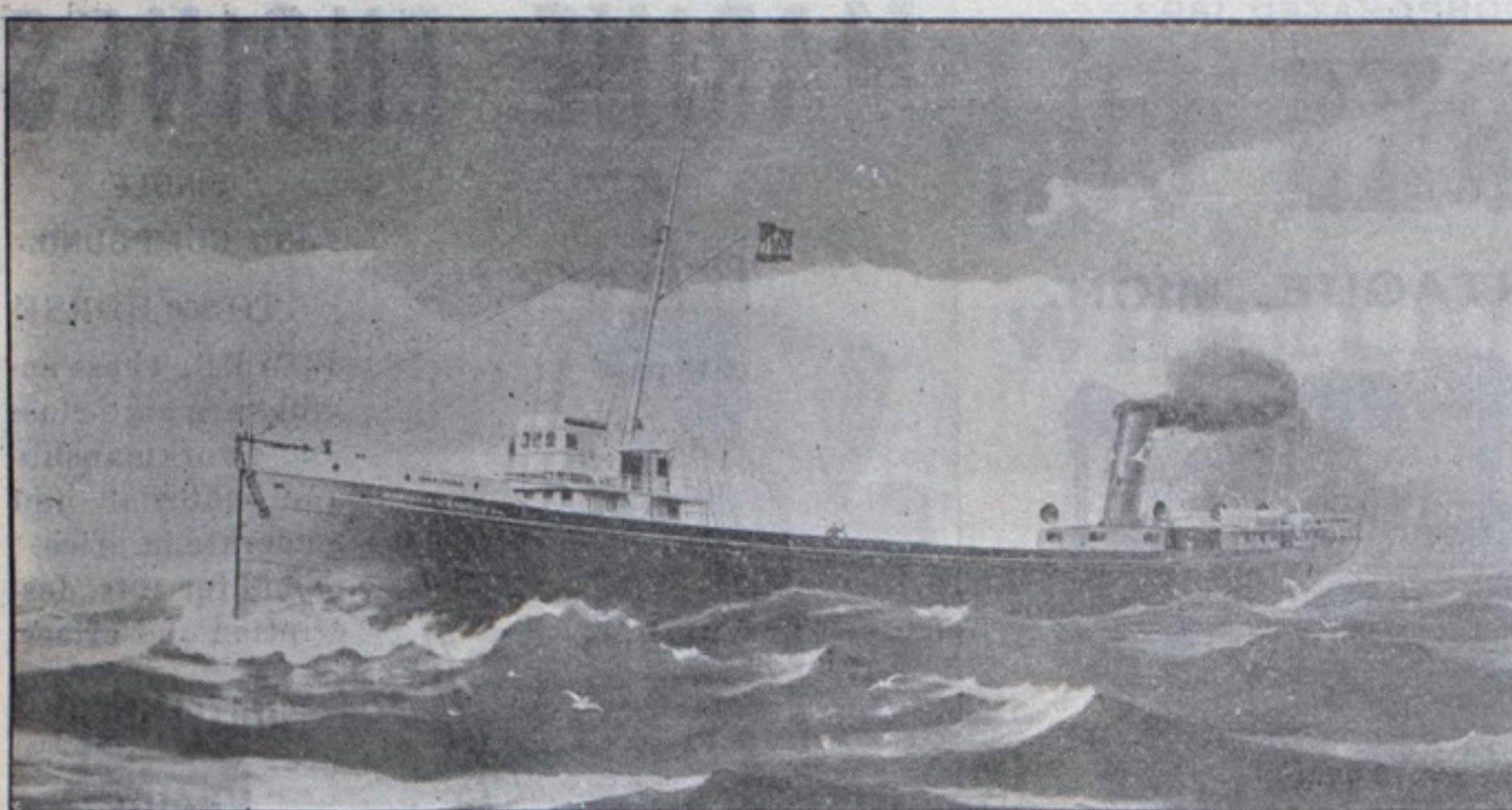
PORTS.	CLOSE OF NAVIGATION.			OPENING OF NAVIGATION.		
	Dec. 1, 1893.	Dec. 1, 1894.	Dec. 1, 1895.	May 1, 1894.	May 1, 1895.	May 1, 1896.
Toledo....	92,911	96,157	113,132	44,500	32,625	10,593
Sandusky....	78,439	77,004	34,375	65,772	67,542	8,442
Huron....	89,000	147,632	101,000	56,791	80,864	55,173
Lorain....	201,632	228,733	224,264	170,391	185,306	118,820
Cleveland....	1,163,930	1,441,785	1,200,792	821,923	718,753	506,693
Fairport....	578,033	660,980	605,470	311,494	371,730	346,847
Ashtabula....	1,296,431	1,439,119	1,301,302	762,138	787,566	636,254
Conneaut....	91,037	199,365	292,460	68,485	108,823	112,406
Erie....	359,827	454,233	335,718	222,094	212,643	137,826
Buffalo....	109,170	94,239	207,199	64,781	57,128	16,644
Total....	4,070,710	4,834,247	4,415,712	2,688,380	2,812,980	1,949,698

The total rail shipments from Lake Erie ports to furnaces in the winter of 1895-6 will appear by using the totals of the above table thus:

GROSS TONS.

On dock at Lake Erie ports Dec. 1, 1895..... 4,415,712
On dock May 1, 1896..... 1,949,698

By rail to furnaces in the winter of 1895-6.... 2,466,014



GRAHAM'S

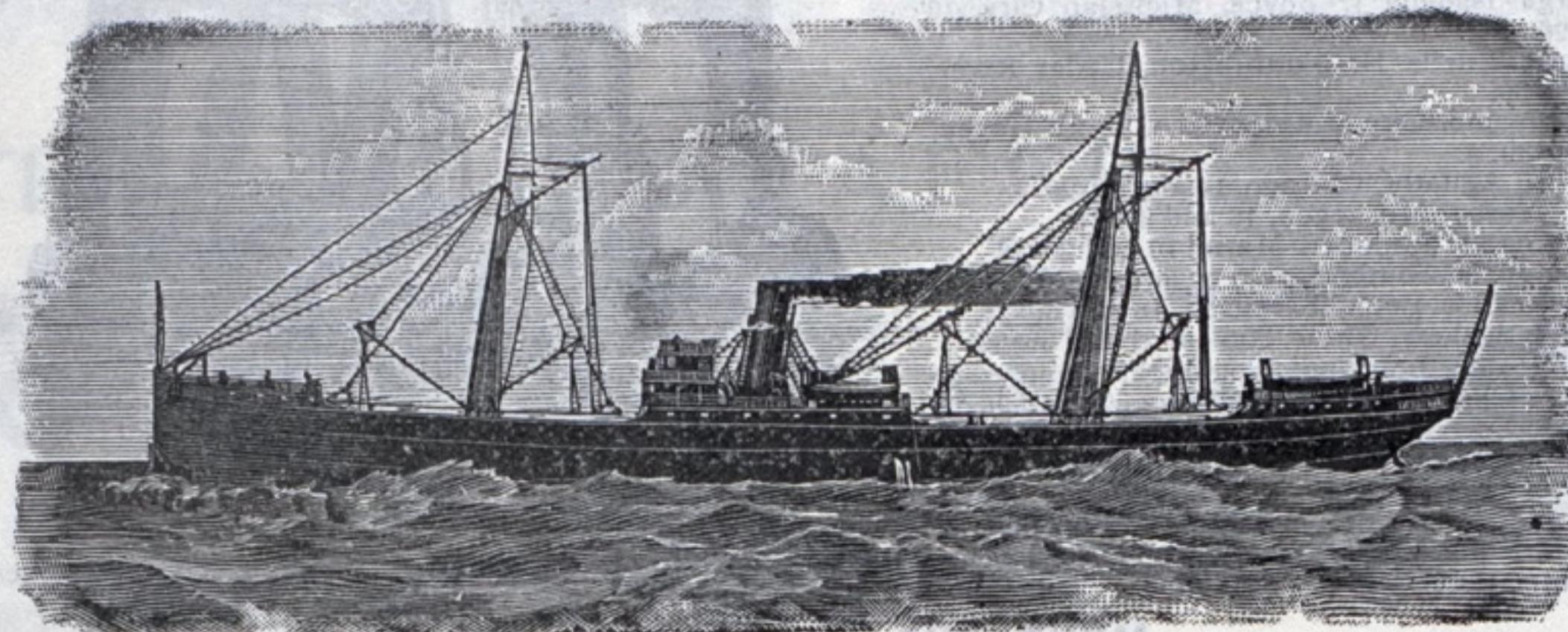
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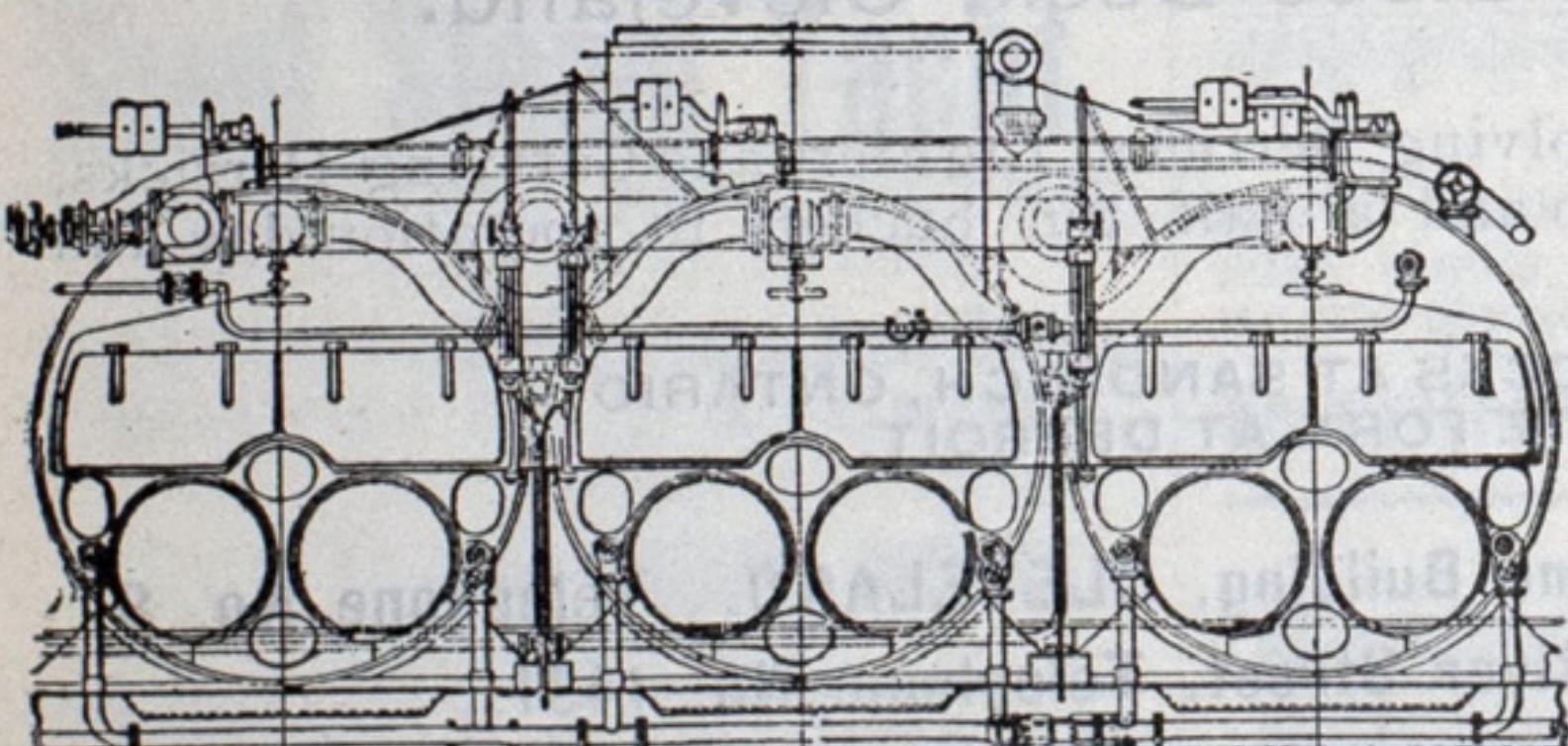
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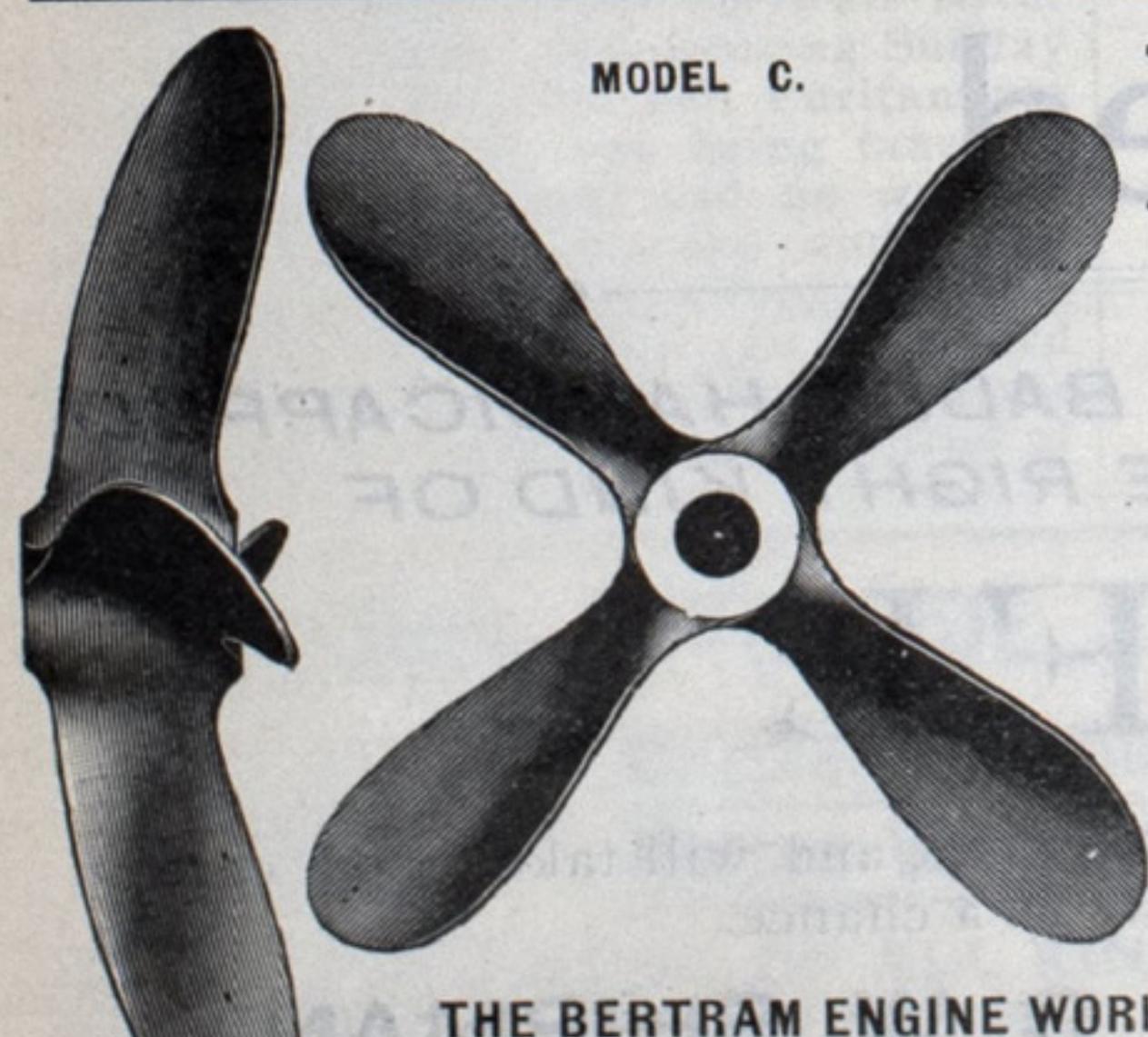
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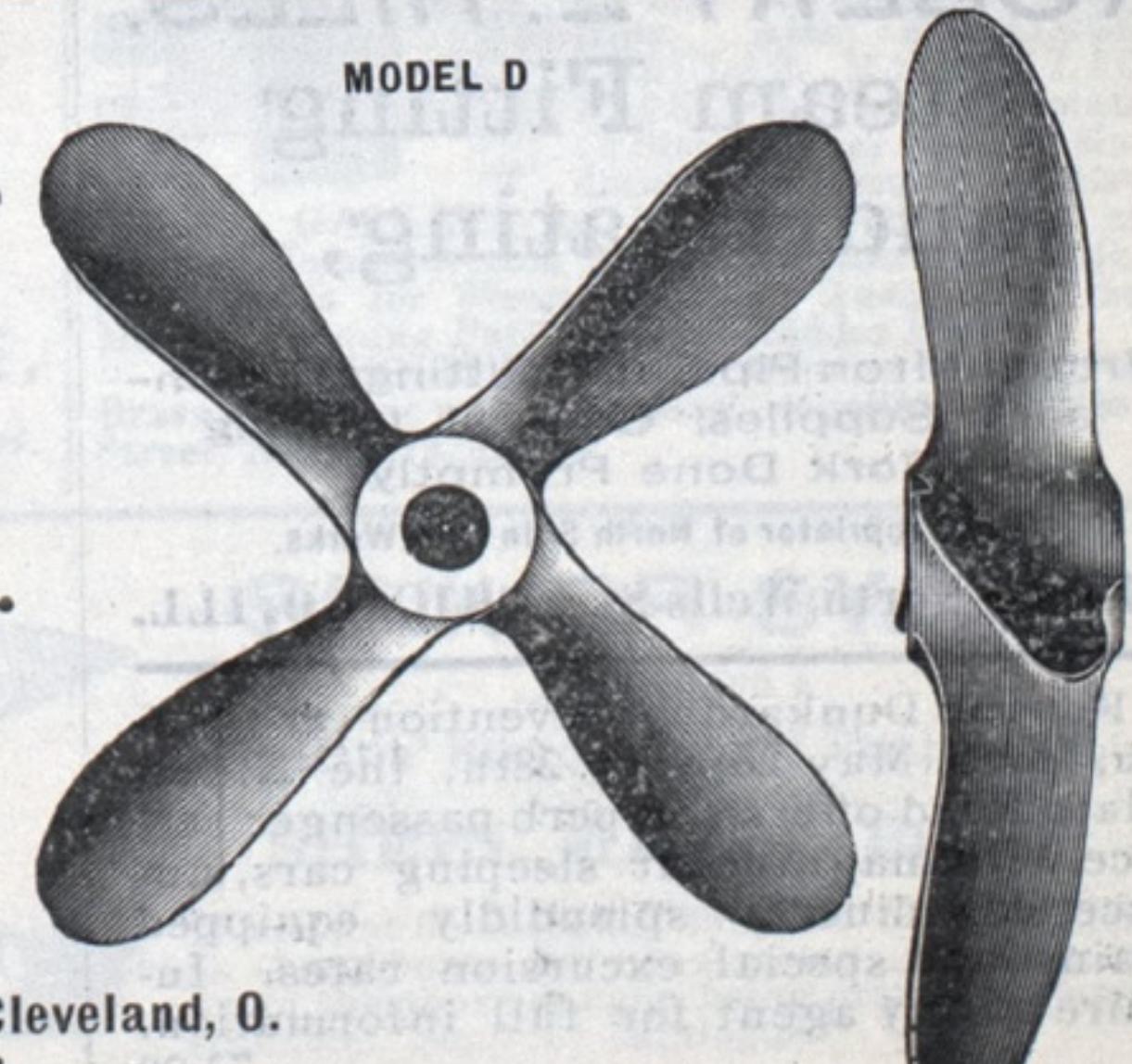


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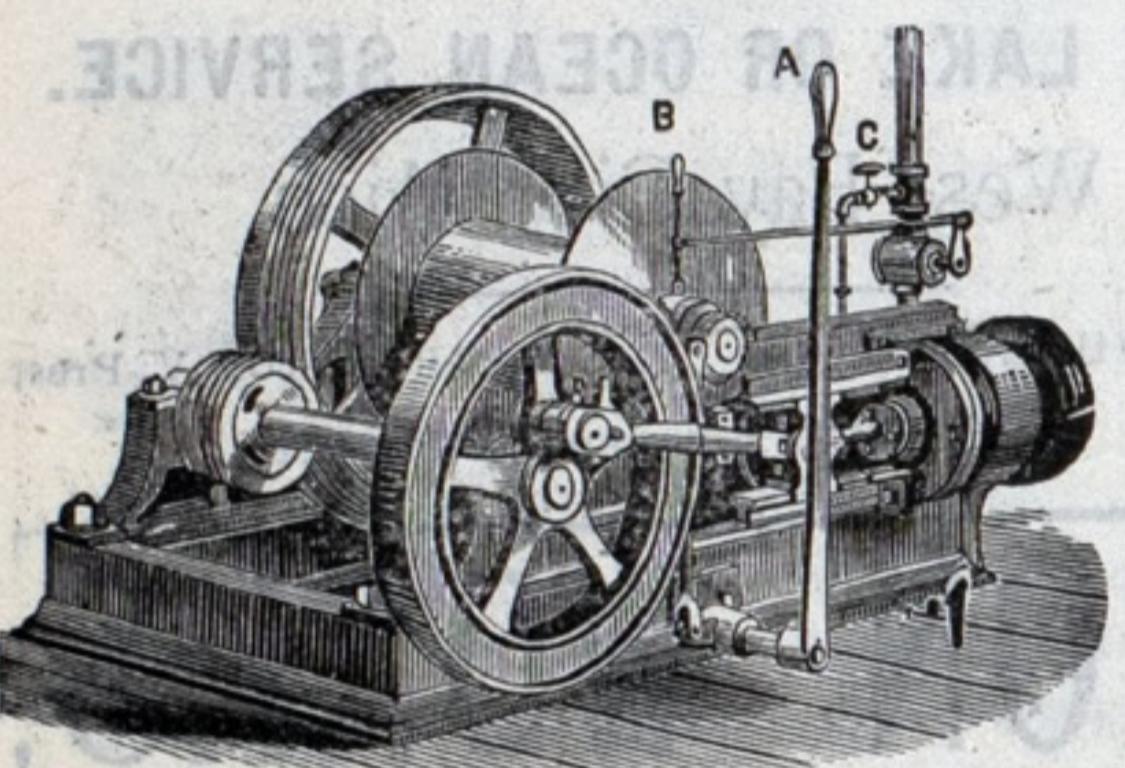
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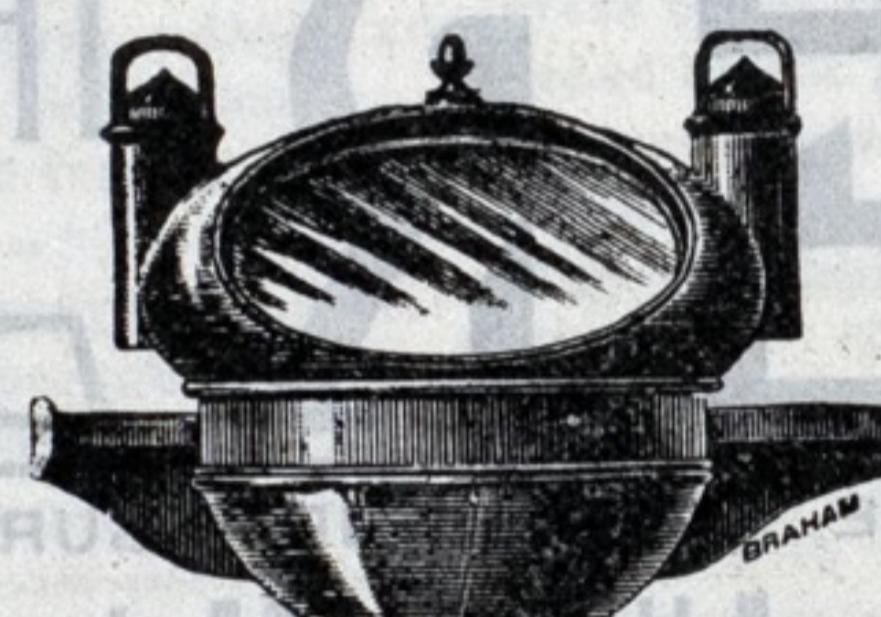
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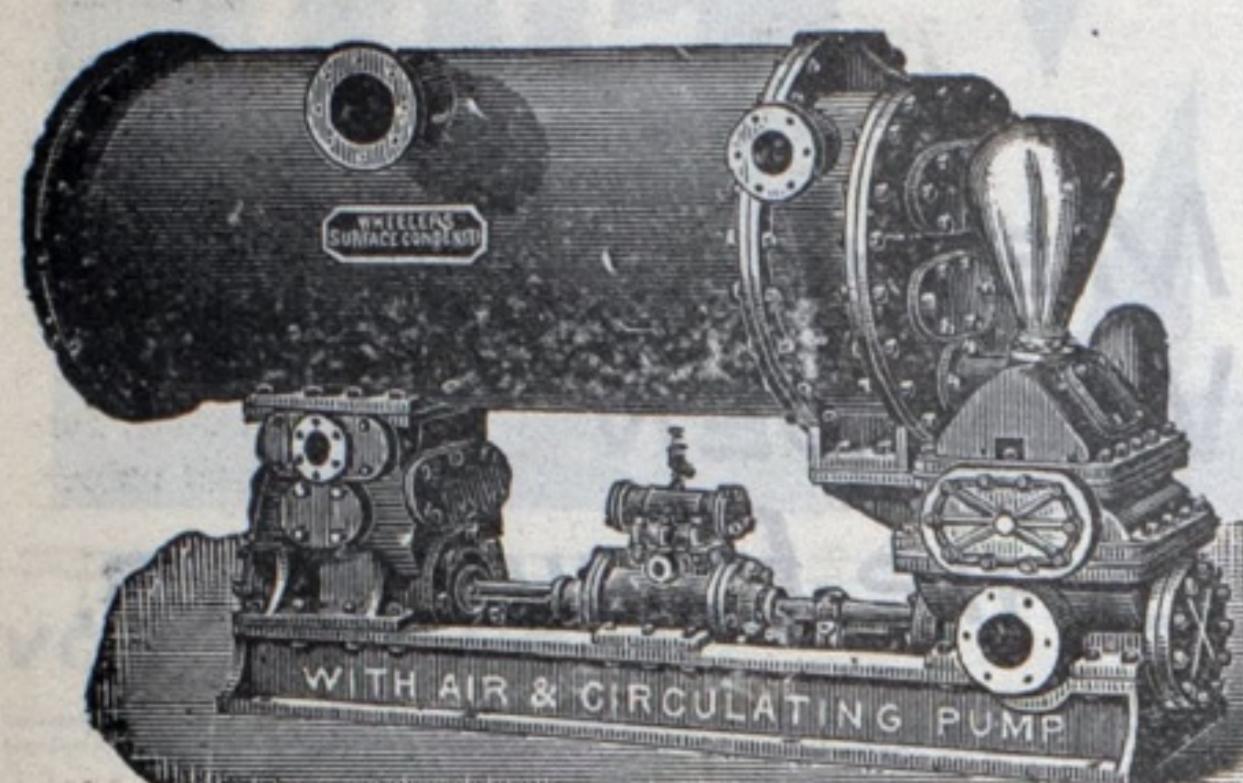
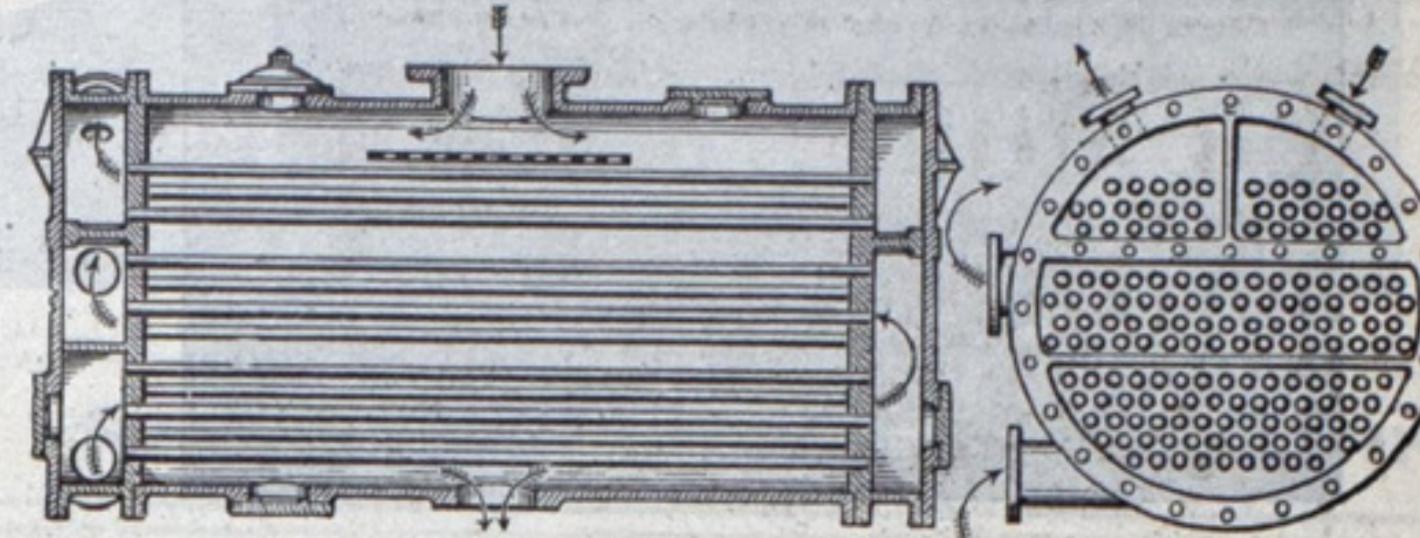
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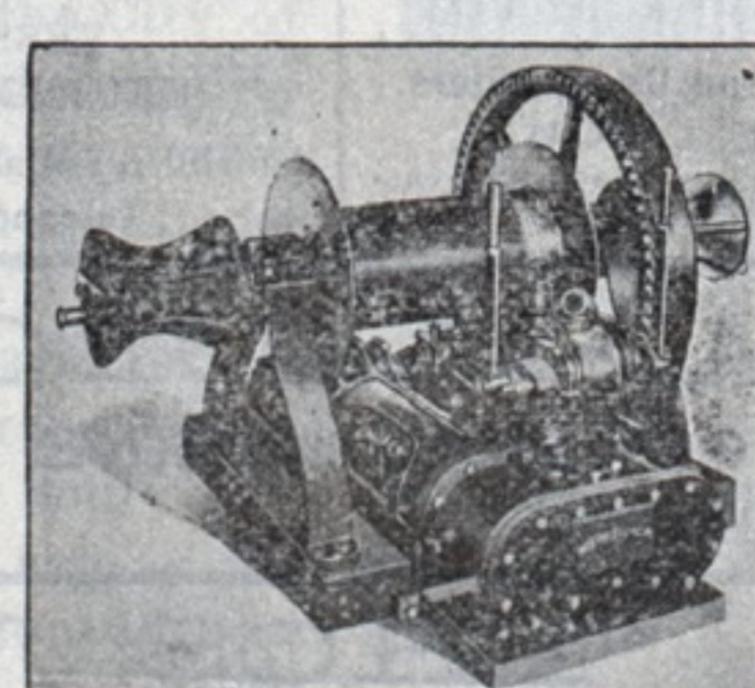


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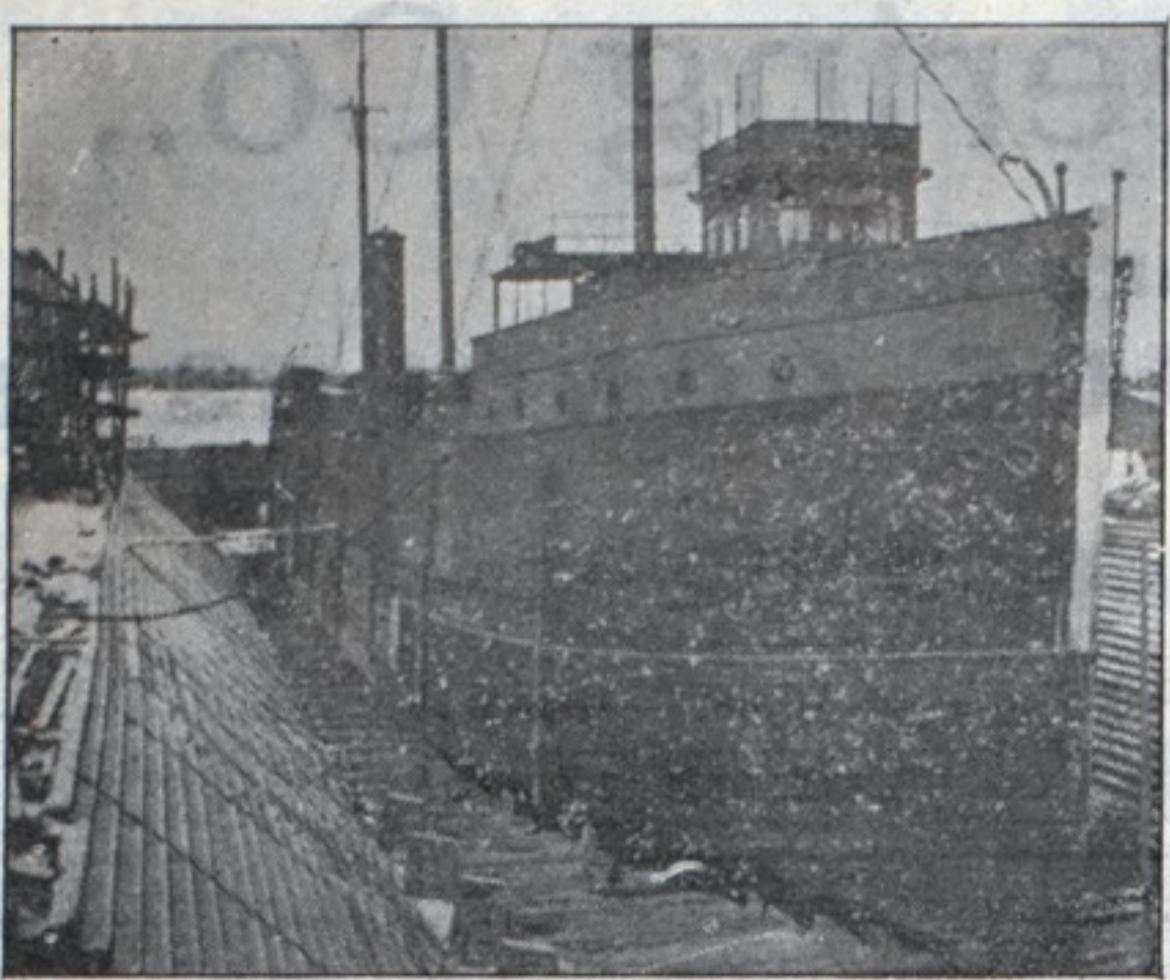
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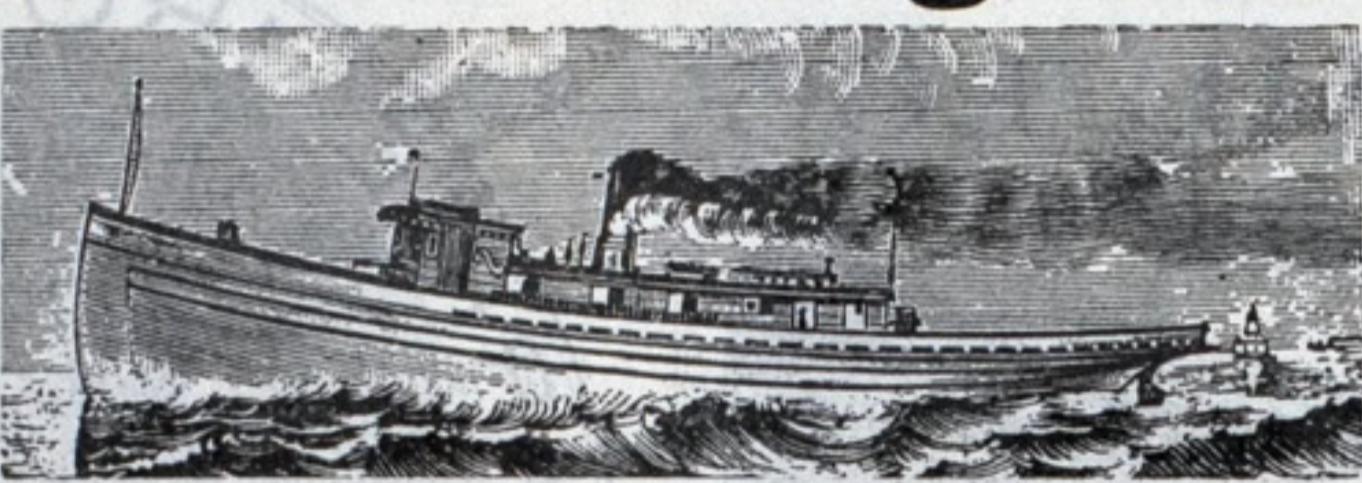
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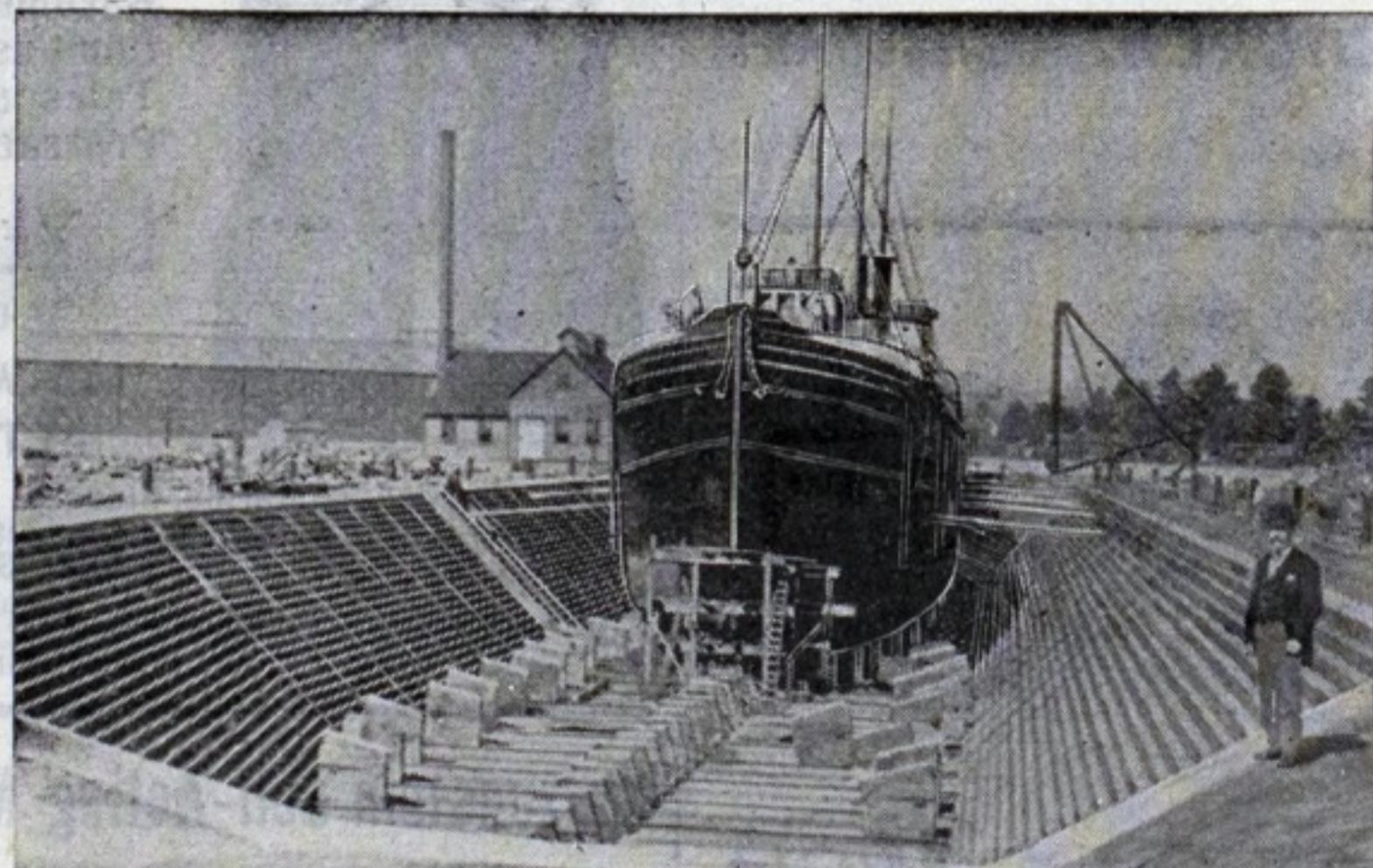
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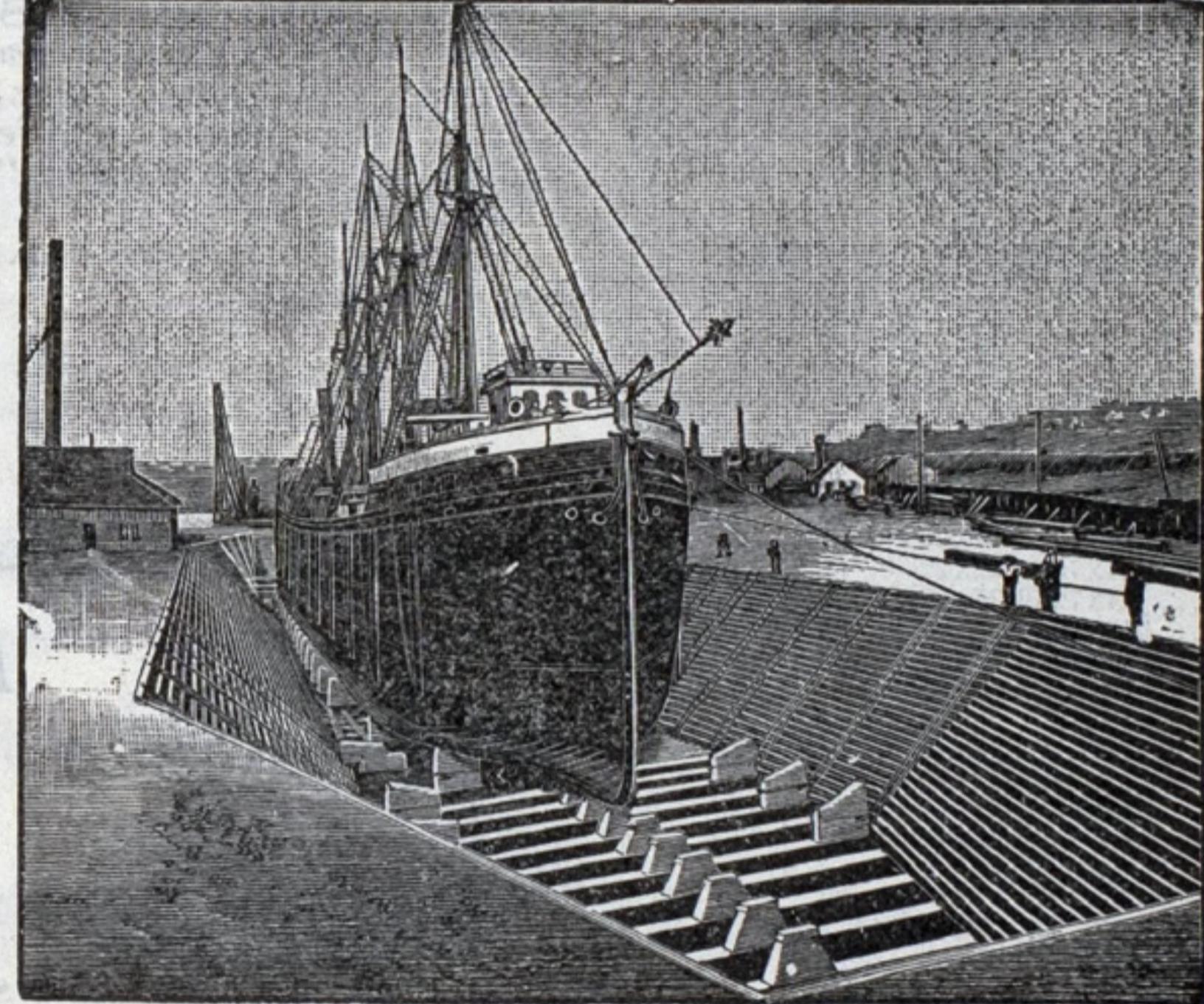
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